

# INDEX OF AUTHORS

## ABSTRACTS A and B, 1933.

An asterisk denotes a previous abstract. Patents are marked (P.).

Anonymous, vitamins, A., 323. Raman spectra and chemistry, A., 337. Early history of determination of atomic charge, A., 551. Nature of dental caries, A., 852. Solubilities of hydrogen chloride, carbon dioxide, and hydrogen in liquid chlorine, A., 1008. Fat-soluble vitamins and nutrition, A., 1088. Atomic transmutation, A., 1100. Chemical control of the circulation, A., 1208. Oestrogenic hormones, A., 1211. Heavy hydrogen and heavy water, A., 1233. Chemistry of muscular contraction, A., 134. Standardisation of cooking degree and bleachability tests on wood pul, B., 13. Superphosphate industry of the U.S.S.R. and five-year plan, B., 17. Determining time of ink absorption of blotting paper, B., 57. Determination of rate of absorption of water by bibulous papers, B., 57. Determination of water-resistance of paper, B., 1. Refining of sugar, B., 87. Heat-treating and forging light alloys, B., 16. Preparation of specimens for exposure tests of electroplated coatings on steel, B., 110. Modern materials, other than metals and alloys, for construction of chemical engineering equipment, B., 127. Chlorinated naphthalenes—air value in electrical industries, B., 139. Production of papain from fruit of the papaya tree (*Carica papaya*), B., 167. Drying and denaphthalising tar gas, B., 179. Heat treatment of steel wire, B., 230. Bideford mineral blk, B., 238. A.I.V. silage, B., 282. Sugar from dried beet, B., 324. Gasification of coal in middle- and small-sized gasworks, B., 337. Saving steam by temperate control [in food canning], B., 364. Refining of sugar. IV., and VI.—IX., B., 406. Effect of moisture content on heat consumption during carbonisation of coal, B., 451. Progress in cement strength revealed by long-time tests, B., 468. White sugar from sugar cane, B., 485. Tunnel kiln for magnesite burning, B., 51. [Tropical] soil analysis, B., 51. Tea-cider, B., 523. Recovery of sulfur from [gas-purifier] spent oxide, B., 577. Stability of

Anonymous—continued.  
trichloroethylene, B., 580. Bismuth determination in copper, B., 631. Preservation of iron and steel surfaces for applied finishes, B., 638. Preparation of white gold, B., 673. Dust explosions, B., 687. Design of purifiers for removal of hydrogen sulphide from town gas by iron oxide, B., 690. F.p. of milk, B., 730. 1% Caustic soda solubility of pulp and wood, B., 742. Weighing, sampling, and testing wood pulp for moisture, B., 742. Weed destruction by chemicals, B., 760. Corrosion phenomena in tar stills, B., 772. Production of absolute alcohol by the Haig process, B., 809. Petrol from coal, B., 818. [Dyeing and finishing] treatment of special mixture materials, B., 827. Synthetic waxes from chlorination of naphthalene, B., 878. Determination of relative evaporation characteristics of volatile liquids [varnish solvents], B., 879. Economics of low-temperature carbonisation at collieries, B., 899. Crépene rayon fabrics, B., 912. Manganese ore as a substitute for steel scrap in the basic open-hearth furnace charge, B., 918. Soldering with copper in an atmosphere of hydrogen, B., 921. Testing of machine lubricating oil, B., 950. Testing transparent papers, B., 959. Modern bleaching powder manufacture, B., 963. Tests of regular and stabilised 18:8 [Cr-Ni-Fe] alloy welds in sulphite[celulose] liquor, B., 968. Corrosion in sulphonators, B., 969. Stability of trichloroethylene; examination of its metal corrosion effects, B., 969. Rapid zinc electroplating from hot cyanide solutions, B., 971. Theoretical and practical aspects of the oil-cracking process, B., 994. Light-resistant organic protective finishes for electrical ebonite, B., 1018. New ultra-accelerator [of vulcanisation of rubber], B., 1022. Micro-methods applicable to [analysis of] soil solutions, B., 1025. Fixation and mobilisation of potassium in different soil types, B., 1026. Nutrient reserve of soils, B., 1026. Grinding of cement clinker and lime-clay to produce new

Anonymous—continued.  
cements, B., 1056. Jointings, putties, and cements for chemical plant, B., 1057. Canning of cockles, B., 1082.

### A.

Aalsmeer, W. C., influence of Lugol's solution on the effect of adrenaline in exophthalmic goitre and beri-beri, A., 1190.  
Aalto, V. See Palomaa, M. H.  
Aarnio, B., and Lönnroth, H., lime requirement of mineral soils of Finland, B., 241.  
Aars, J., photometric investigation of the most intense emission bands of fluorine, A., 1.  
Abadie, P. See Girard, P.  
Abakumovskaja, L. N. See Nametkin, S. S.  
Abbassi, M. A., determination of m.p. of fats and allied substances, A., 248.  
Abbot, C. G., kampfometer, a new instrument of extreme sensitiveness for measuring radiation, A., 481.  
Abbott, C. B. See Hammerly, F. V.  
Abbott, G. B. See Boruff, C. S.  
Abbott, R. H. S., treatment of water, (P.), B., 529.  
Abbott Laboratories, medicinal oil solutions, (P.), B., 812.  
See also Moore, E. E.  
Abbotts Dairies, Inc. See Matt, M. C.  
Abder-Halden, C., fractionation of hydrocarbons by distillation with steam, B., 179.  
and Soc. pour l'Exploit. des Procs. Abder-Halden, retort with revolving hearth, (P.), B., 656.  
Abderhalden, E., behaviour of polypeptides containing proline towards the crepsin and trypsin-kinase complex, A., 1331.  
and Bahn, A., isolation of tyrosylacrylprolyltyrosine in the stepwise degradation of silk-fibroin (*Bombyx mori*), A., 1063.  
and Broich, F., hydroxyamino-acids, A., 940. Behaviour of dipeptides containing  $\epsilon$ -amino-*n*-heptonic acid towards trypsin and crepsin, A., 1331.

- Abderhalden, E., and Buadze, S., properties of proteolytic protective enzymes; optimal  $p_H$  of their action; detection of polypeptidase in urine, A., 314. Specific production of protective enzymes by means of serum-globulin and -albumin and iodised and nitrated proteins, A., 636. Specificity of defence enzymes; differentiation of proteins from blood-plasma or -serum of different blood-groups of healthy and diseased individuals, also of species-specific tissue proteins, A., 1332.
- and Effkemann, G., influence of heavy-metal salts on the hydrolysis of polypeptides of different composition and their derivatives and halogenoacyl-amino-acids by enzyme complexes contained in crepsin and trypsin solutions, A., 1331. Specificity of defence enzymes, A., 1332.
- and Ehrenwall, E. von, production of ereptic action in "crepsin-free" trypsin solutions prepared according to Waldschmidt-Leitz-Harteweck. IV. and V., A., 1331.
- Ehrenwall, E. von, Schwab, E., and Zumstein, O., identity of the chloroacetyl-L-alanine-splitting component of crepsin solutions with that which hydrolyses chloroacet-o-nitroanilide and related compounds, A., 315.
- and Haase, E., behaviour of polypeptides composed solely of  $l(+)$ - $\alpha$ -amino-butyric acid towards N-alkali, crepsin, and trypsin-kinase, A., 264.
- and Heyns, K., identification of  $l(+)$ -norleucine as constituent of proteins of spinal marrow and peripheral nerves, A., 411. Detection of chitin in the wing residues of *Coleoptera* of the upper middle eocene (found at Geisel-tal), A., 625.
- and Neumann, A. L., comparison of qualitative fission of polypeptides and various derivatives, and of speed of degradation by N-alkali at 37°, A., 265. Comparative fission of triglycyl-glycine by normal sodium hydroxide and crepsin at 37°, A., 621.
- and Nienburg, H., action of crepsin and trypsin-kinase on prolyl polypeptides, A., 615. Preparation of ethyl  $l(+)$ -glutamate,  $l(-)$ -isoglutamine, and ethyl  $l(-)$ -N-carbobenzoyloxyglutamate, A., 1039.
- and Plötner, K., physical properties of polypeptides composed of  $l(+)$ -norleucine and their behaviour towards crepsin and trypsin, A., 264.
- and Schwab, E., compounds of the type amino-acid-(2:5-diketopiperazine) and their behaviour towards acid, alkali, and enzymes, A., 75. Liver-proteinases and -polypeptidases, A., 636. Range of action of proteinases and polypeptidases appearing during the autolysis of organs, A., 1331. Behaviour of cerebrum towards enzymes, A., 1332.
- Schwab, E., and Valdecasas, J. G., behaviour of polypeptides containing sarcosine and methyl-leucine units towards N-alkali, crepsin, trypsin-kinase, and yeast extract, A., 265.
- and Wertheimer, E., behaviour of glycogen in the organism in absence of vitamin-B complex (particularly  $B_1$ ) from the diet, A., 1213.
- Abderhalden, E., and Zeisset, W., behaviour towards crepsin and trypsin of polypeptides containing  $\alpha$ -aminoisobutyric acid, A., 264. Enzyme systems contained in crepsin- and trypsin-complex, A., 265.
- Abdoulouf, I. See Ivanov, D.
- Abe, J., catalytic preparation of nitriles with Japanese acid clay, A., 1039. See also Kobayashi, Kiuei.
- Abe, M., placental enzymes in various stages of pregnancy, A., 304.
- Abe, R., influence of catalysts in liquefaction of Fushun coal by berginisation. VII. X-Ray spectroscopic analysis of  $Fe_2O_3$  catalyst after use in an atmosphere of hydrogen or nitrogen, B., 5. Thermal reaction and hydrogenation of coal. I. Thermal reaction of Fushun coal under a high-pressure nitrogen atmosphere. II. Berginisation of Fushun coal at 350–500°, B., 178.
- Abe, S., and Hara, R., solubilities of salts in liquid ammonia. I. Solubility of sodium chloride and the saturated vapour pressure of the solution, A., 1240.
- Abecassis, E. F. See Marques, A.
- Abele, H. van den. See Baetslé, R.
- Abel, A. L. See Jarman, R.
- Abel, E., [reactions of iodine], A., 135. Kinetics of formation of sulphuric acid, A., 233. and Schmid, H., streaming kinetics; photolysis model, A., 231. Schmid, H., and Retter, K., photo-chemical kinetics of iodine-oxalate reaction. I., A., 237. Schmid, H., and Sidou, W., kinetics of diazotisation. I. Aliphatic series, A., 1250.
- Abel, E. G. See Brander Farbwerke Chem. Fabr. G.m.b.H.
- Abel, J. G., interpretation of tests on paper, B., 359.
- Abel, M. G. See Miller, Carey D.
- Abelin, I., determination of thyroxine content of thyroid and thyroid preparations, A., 192. Effect on metabolism of highly-iodinated or brominated thyroid preparations, A., 320. Substances with thyroid-like action from artificially iodinated protein, A., 539. Relations between carotene (vitamin-A) and thyroxine, A., 870. and Florin, A., non-thyroid substance with thyroid action, A., 1087. and Wegelin, C., effect of di-iodotyrosine on thyroid action, A., 320.
- Abeloff, A. J., and Sobel, I. P., viosterol in experimental fibrous osteitis, A., 416.
- Abendroth, B., influence of adsorbed gas layer on photo-electric sensitivity, A., 1103.
- Aberle, S. B. D., mucification of the vaginal epithelium of immature mice following injections of follicular fluid, A., 986.
- Abezgausz, I. See Goldberg, D.
- Ablov, A., influence of substituents in bases and anions on the co-ordination index of a metal. II., A., 578. Complex salts of 8-hydroxyquinoline, A., 721. See also Costăchescu, N.
- Abraham, M., repeated hardening of duralumin rivets and effect of the age-hardening temperature, B., 1014.
- Abrahams, H. J., and Lucasse, W. W., change in transformation temperature of copper sulphate at 56° with the solvent medium, A., 570. See also Lucasse, W. W.
- Abrahamson, O. E. J., obtaining colloidal clays from ordinary surface clays, (P.), B., 507.
- Abrahamsson, H. V. See Clemmedson, B. A.
- Abramov, F. A. See Danilov, S. N.
- Abramovitch, M. See Lemarchands, M.
- Abramson, H. A., electrokinetic phenomena. VIII. Surface conductance of cellulose and Smoluchowski's theory. XI. Action of univalent electrolytes on electric mobility of proteins, A., 28, 567. Surface charge of large particles in liquids, A., 1242. See also Wintersteiner, O.
- Abribat, M., potentiometric titration of acetyl in cellulose acetates, B., 459.
- Accumulatoren-Fabrik Akt.-Ges., manufacture from aqueous rubber dispersions of a highly viscous substance capable of being shaped, applied with a brush, or sprayed, (P.), B., 1023.
- Aceta Ges.m.b.H., sizing of textile materials, (P.), B., 16. See also I. G. Farbenind.
- Achalme, P., chemical nature of the neutron, A., 335.
- Achard, C., and Boutaric, A., suspensions of proteins precipitated from serum by acetone, A., 175.
- Boutaric, A., and Bouchard, J., antioxygenic properties of alkaloids, A., 789.
- Verne, J., Bariéty, M., and Hadjigeorges, E., action of intravenous injection of sodium hydrogen carbonate on kidney-fat in the dog, A., 423.
- Acheson, Ltd., E. G., and Szyanowitz, R., printing matrix and coating compositions therefor, (P.), B., 639.
- Achmatowicz, O., structure of strychnine and brucine. I. II. Dihydrodimethoxymethylhexahydrostrychnine and its derivatives. III. Decomposition of strychnine and strychnidine metho-chlorides by hydrogen in the presence of palladium, A., 78, 170, 406.
- Achmed, H. See Lütke, M.
- Achmeiko, A. I., effect of organic constituents of farmyard manure on soil fertility, B., 84. Water properties of soils in relation to their structure and drying, B., 241. Organic matter and productivity of soils, B., 726. Cause of unresponsiveness of southern soils to manures, B., 726.
- Achtermann, T., ergostadienetrin, A., 820.
- Acken, J. S. See Thompson, J. G.
- Acker, A. van, oligodynamin action of silver, and rôle of oxygen, B., 1084.
- Acker, F. V., and Petroleum Eng., Inc., fractionators, (P.), B., 608.
- Acker, W., and König, F., influence of manuring on resistance of grain crops to rust, B., 518.
- Ackere, J. van, and Koppe Co., vertical [coking] retort structure (P.), B., 8. and Koppers Co. of Elaware, gas producer, (P.), B., 613. Coking retort oven, (P.), B., 660. See also Koppers Co. of Elaware.
- Ackermann, K. L., heavy metals of low m.p. in lead bearing nails, B., 510.
- Ackermann, P., determination of calcium oxide in magnesium compounds, B., 226.
- Ackermann, Paul. See Fricke, R., and Hüchel, W.
- Ackermann, W., diphenylamine as indicator in the titration of chromate, and a method of analysis used [one-bath] chrome [-tanning] dyes, B., 117.

- Aekermann, W., detection of small amounts of carbon monoxide in air, B., 334.
- Ackerson, C. W. See Mussehl, F. E.
- Activated Sludge, Ltd., Jones, E. R., Denton, A. B., and Coombs, J. A., supplying air or gas in a finely-divided state to liquids, (P.), B., 945.
- Adachi, I., tensile properties and carbon content of low-carbon steel, B., 429.
- Adachi, K., intermediary metabolism of muscle in fever. I. Gas and carbohydrate. II. Phosphoric and uric acids, A., 628.
- and Kasai, S., intermediary carbohydrate metabolism during experimental fever, A., 628. Intermediate carbohydrate metabolism in muscle in diabetes mellitus, A., 852.
- See also Kodera, K.
- Adachi, T. See Kozawa, S.
- Adadurov, I. E., good and poor catalysts for production of sulphuric acid, A., 790. Catalytic oxidation of ammonia on platinum gauze, A., 790.
- Galameeva, L., and Gernet, D. V., thermal dissociation of gypsum in presence of catalysts, A., 681. Thermal dissociation of chemically pure gypsum in presence of oxides of iron, aluminium, and chromium, A., 783.
- and Gernet, D. V., influence of the shape and size of the pieces of contact substance on catalytic processes, A., 912.
- Adair, G. S., Adair, (Mme.) M. E., Roche, J., and Roche, (Mme.) A., mol. wts. of globin of different hæmoglobins, A., 293.
- See also Roche, J.
- Adair, (Mme.) M. E. See Adair, G. S., and Roche, J.
- Adair, S. T., and Silica Gel Corp., preparation of solid adsorbents, (P.), B., 369.
- Adam, B. See Treadwell, W. D.
- Adam, (Miss) M., pole effect of iron, A., 107. Iron spectrum in the hydrogen flame, A., 199.
- Adam, N. K., unimolecular surface films, A., 21. Surface films of cellulose derivatives on aqueous solutions, A., 222. Evidence from surface films on the constitution of batyl and chimyl alcohols, A., 374. Surface films. XVII.  $\gamma$ -Hydroxystearic acid and its lactone, A., 564.
- Danelli, J. F., Dodds, E. C., King, H., Marrian, G. F., Parkes, A. S., and Rosenheim, O., nomenclature of the estrin group, A., 1048.
- and Harding, J. B., surface films. XVI. Surface potential measurements on fatty acids on dilute hydrochloric acid, A., 21.
- See also Guggenheim, E. A., and Harding, J. B.
- Adam, R. A. See Cunard Steam Ship Co.
- Adamonis, F., thermal analysis of organic compounds, A., 906.
- See also Hrynakowski, C.
- Adami, P., separation of beryllium from allied elements of the third group, A., 1262.
- Adams, A. B., preparing from rock phosphate a fertiliser suitable for use on acid or lime-deficient soils or on soils rich in iron, (P.), B., 647.
- Adams, A. S., Pearson, W. L., McCall, H. C., Miller, J. P., and Messer, L. T., sewage-disposal plant, (P.), B., 126.
- Adams, B. See Hind, S. R.
- Adams, C. E., and Standard Oil Co., colour stabilisation of lubricating oils, (P.), B., 854.
- Adams, E. H., and Trumble Gas Trap Co., gas trap, (P.), B., 499.
- Adams, E. M., Gangloff, W. C., Spencer, G. C., and Drackett Chem. Co., cleaning of oil wells, (P.), B., 535.
- Adams, E. W., and Standard Oil Co., drawing lubricants; emulsion, (P.), B., 538.
- Adams, F. H., and Wallis, E. S., action of sodium in liquid ammonia on derivatives of optically active triaryl-methanes, A., 153.
- See also Wallis, E. S.
- Adams, F. W., absorption of sulphur dioxide in water, B., 426.
- and Bellows, J., value of a paper stiffness test, B., 343.
- Adams, H. W., and Buswell, A. M., o-tolidine test for chlorine [in water], B., 942.
- Adams, J. F., bacterial and fungal flora in sulphur fungicides, B., 85.
- Adams, J. R. See Merz, A. R.
- Adams, L. H., and Gibson, Ralph Edward, equilibrium in binary systems under pressure. III. Influence of pressure on solubility of ammonium nitrate in water at 25°, A., 120.
- See also Gibson, Ralph Edward.
- Adams, L. V. See Gen. Electric Co.
- Adams, N. I., jun., application of probabilities to the counting of  $\alpha$ -particles, A., 1224.
- Adams, P. D. See Anderson, A. K., and Strickler, A.
- Adams, R. See Kleiderer, E. C., Patterson, W. I., Searle, N. E., Stanley, W. M., Stoughton, R. W., Van Arendonk, A. M., and Yuan, H. C.
- Adams, R. C. See McGraw, W.
- Adams, R. F. See Greenstreet, C. J.
- Adams, R. S. See Cameron, D. H.
- Adams, W. H., modern bleaching of cotton fabrics, B., 424.
- and Eastern Finishing Works, mildew-proof fabric, (P.), B., 827.
- Adams, W. L. See Bing, F. C.
- Adams, W. S. See King, R. H.
- Adamson, A. G. See Still & Sons, Ltd., W. M.
- Addinall, C. R., and Major, R. T., identity of narceine with  $\psi$ -narceine, its dehydration and structure, A., 518.
- Nareotine and hydrastine; mechanism of their conversion into narceine, methyl-hydrastine, and their derivatives, A., 728.
- Addington, L. H. See Cunningham, O. C.
- Addoms, R. M., and Mounce, F. C., nutrient requirements and histology of the cranberry, B., 244.
- Addy, C. W. See Brit. Celanese.
- Adel, A., and Dennison, D. M., infra-red spectrum of carbon dioxide. I. and II., A., 661, 855.
- See also Barker, E. F.
- Adelantado, L., phosphates and phosphoric acid, (P.), B., 669.
- Adelsköld, V., Sundelin, A., and Westgren, A., carbides in carbon-containing alloys of tungsten and molybdenum with chromium, manganese, iron, cobalt, and nickel, A., 772.
- Adelson, S. L., and Gen. Zeolite Co., filtration plant control, (P.), B., 529.
- Adeney, W. E., biochemical, biophysical, and physical principles underlying the self-purification of crude sewage liquors, B., 286.
- Adey, G. E., apparatus for effecting electro-deposition of metals, (P.), B., 874.
- Adhikari, N. See Rây, (Sir) P. C.
- Adickes, F., Hessling, G. von, and Müllenheim, S. von, course of alkylation of enolates, A., 697.
- Adkins, H., quantitative hydrogenation at 100–300 atm., A., 1270.
- Kommes, C. E., Strnss, E. F., and Dasler, W., preparation of aldehydes and ketones by dehydrogenation of alcohols over copper-chromium oxide, A., 936.
- Wojcik, B., and Covert, L. W., catalytic hydrogenation of esters to alcohols. III., A., 604.
- See also Connor, R., Houtz, R. C., Minné, N., Waldeland, C. R., Winans, C. F., and Wojcik, B.
- Adkins, R. See Brit. Thomson-Houston Co.
- Adler, K., acid poisoning of the organism by X-rays, A., 861.
- Adler, O., melanin acids in binary systems, A., 176.
- Adler, S. See Reifenberg, A.
- Adlersberg, D. See Porges, O.
- Adnot, A. See Merklen, P.
- Adnot, (Mme.) J. See Guillaume, J.
- Adolph, W. H., and Wang, P. C., iodine content of food in coastal mid-China, A., 546.
- Wang, T. Y., and Wang, P. C., emotional glycosuria in Chinese students, A., 628.
- and Yang, E. F., determination of soyabean milk as an adulterant in cow's milk, B., 603.
- Adova, A. N. See Smorodincev, I. A.
- Advani, A. H., and Wheeler, T. S., nitration of chloral condensation products of alkylarylamines, A., 497.
- See also Meldrum, A. N.
- Aerocrete Corporation of America. See Sahlberg, R. K. O.
- Aerovox Wireless Corporation, and Georgiev, A., electrolytes [for aluminium-electrode dry condensers], (P.), B., 353\*.
- Aeschbach Akt.-Ges., F., protecting devices in kneading and mixing machines, (P.), B., 97. Kneading and mixing machines, (P.), B., 129, 369.
- Afanasiev, A. S. See Brodski, A. I.
- Afanasiev, Y. N., genetic classification of soils of the turfy podsolised zone, A., 484. Classification of soils of turfy, podsolised, and swampy types according to crop yield, B., 401.
- Afonski, I. F. See Ver, O. I.
- Agafonov, V., red Mediterranean soils of France and their origin, A., 1269.
- and Pavlovitch, S., thermal analysis applied to soils, B., 802.
- Agar, C. C., chemical treatment of [sewage] sludge to facilitate disposal, B., 526.
- Agar, W. M., Danbury granodiorite gneiss of Connecticut, A., 140.
- Agarbecanu, I. I., absorption of fluorescent light of iodine by its vapour, A., 2. Monochromatic excitation of fluorescence of iodine, A., 200. Action of a magnetic field on absorption spectrum of iodine, A., 439. Width of absorption lines of I<sub>2</sub>, A., 880.
- Agasote Millboard Co. See Landt, G.
- Agde, G., and Hubertus, R., yields of distillation products of brown coals, B., 209. Dehydration of brown coal before distillation, B., 658.

- Ageev, N., and Shoyket, D., constitution of the silver-rich aluminium-silver alloys, A., 1110.
- Ageeva, V. A. See Schischokin, F. P.
- Agia Anasco Corporation. See Frankenburg, W., and Griessbach, R.
- Agracheva, R. A. See Volski, A. N.
- Agren, G., and Wilander, O., purification of secretin, A., 641.
- See also Hammarsten, E.
- Agte, C., "Widia" metal in service of the chemist, B., 152. Super-refractories and their technical application, B., 228.
- Becker, K., and Göler, von, system tungsten-cobalt, A., 118.
- Agte, K. See Gen. Electric Co.
- Ahearn, A. J., effect of temperature on emission of electron field currents from tungsten and molybdenum, A., 993.
- Ahlberg, J. E. See Simon, F.
- Ahlberg, R.,  $\alpha$ -bromo-*n*-butyric acid. I. Preparation, purity, and velocity of hydrolysis. II. Resolution of the racemic acid, A., 49, 257. Stereoisomerides of  $\alpha$ -bromo-*n*-butyric acid, A., 257. Stereochemistry of sulphur. I. Stereoisomeric  $\alpha\alpha'$ -dicarboxypropyl disulphides, A., 1036.
- Ahlidin, G. See Widmark, E. M. P.
- Ahlström, L. See Euler, H. von.
- Ahluwalia, G. S., Kaul, K. N., and Rây, J. N., attempts to prepare antimalarials. IV. Derivatives of cotarnine, A., 960.
- See also Rây, J. N.
- Ahmad, B., and Malik, K. S., metabolism of carotene in different animals, A., 1212.
- Ahmad, N. See Koshal, R. S., Samuel, R., and Venkataraman, V.
- Ahmet, H., tracheomycosis, B., 840.
- Ahnell, H. O., brick, etc., (P.), B., 707.
- Ahobalaeharya, C., and Dhar, N. R., preparation and properties of highly concentrated sols. II. Sols of vanadium pentoxide, silicic acid, and molybdic acid, A., 123.
- Ahrens, G., Fernholz, E., and Stoll, W., hexahydro-derivatives of irradiation products of ergosterol, A., 271.
- Ahumov, E. I., and Vasiliev, B. B., dissolving carnallite deposits through a well boring by Preobraschenski's method, B., 304.
- Ai, S. See Uchida, So.
- Aichelin, C. See under Aichelin, J.
- Aichelin, J., and Hummel, C., case-hardening iron, (P.), B., 712.
- Aimaud, R., variations in viscosity of viscose as a function of temperature, B., 501.
- Aimond, L., condensation of formaldehyde with sulphonated hydrocarbons, B., 855.
- Ainslie, T. D., and Roessler & Hasslacher Chem. Co., apparatus [kier] for treating textile materials, (P.), B., 622.
- See also Roessler & Hasslacher Chem. Co.
- Ainsworth, C. D., treatment of cellulose material [wood for musical instruments], (P.), B., 830.
- Air Control Systems, Inc. See Van Vliet, P. D.
- Air Reduction Co., Inc. See Dolley, P. T., and Metzger, F. J.
- Air-Way Electric Appliance Corporation, air-porous paper, (P.), B., 861.
- Aitken, H. A. A. See Hercus, C. E.
- Aitken, W. W., poisoning of fish, B., 894.
- Aiton, J. A., high-pressure and high-temperature steam-pipe work, B., 48.
- Aizawa, T., Wachi, G., and Ebihara, T., tinning and galvanising, B., 791.
- Ajax Electrothermic Corporation. See Eibl, F., Jackson, W. S., Knerr, H. C., Linnhoff, F., Northrup, E. F., and Tama, C.
- Ajax Metal Co. See Neuhauss, H.
- Ajello, T., active principle of *Atractylis gummifera*, A., 612. Potassium atractylate and the work of Wunschendorff and Braudel, A., 829.
- Akabori, S., oxidative degradation of  $\alpha$ -amino-acids by sugars, A., 263. 1:3-Dimethylbarbituric acid as reagent for aldehydes, A., 284. Synthesis of glyoxaline derivatives from  $\alpha$ -amino-acids. I. Synthesis of deaminohistidine and the constitution of ergothioneine, A., 285.
- and Numano, S., synthesis of glyoxaline derivatives from  $\alpha$ -amino-acids. II. Synthesis of glyoxaline derivatives and constitution of pilocarpine, A., 285.
- Akahira, T. See Gemant, A.
- Akao, A., growth and chemical constituents. I. Silkworms, A., 181. Content of uric acid, free amino-nitrogen, and  $p_H$  of blood of silk-worm pupæ, A., 296. Nucleic acid metabolism. II. Synthesis of uric acid in pupæ of silkworms from metabolites of nitrogenous compounds, A., 309.
- Akazaki, K. See Hiki, Y.
- Akerlöf, G., dielectric constants of organic solvent-water mixtures at various temperatures, A., 19.
- Akhurst, C. G., carbon and nitrogen contents of natural covers [on rubber plantations], B., 202.
- Akimoto, K., combination experiments on magnesium and calcium with morphine with regard to the influence on blood-sugar, A., 744.
- Akimov, G. V., theory of structure-corrosion, B., 510. Corrosion at riveted joints in duralumin structures, B., 872.
- and Kroenig, W., prevention of corrosion of aluminium alloys by metallic coatings applied by Schoop's spray process, B., 152.
- Akins, R. P., continuous filter, (P.), B., 656.
- Akita, M., combustion of light hydrocarbons at constant volume. I.—III., A., 910.
- Akiyama, G. See Tsuchiya, T.
- Akiyama, K., change of sulphates in cement clinker during heating, B., 148. Facility of burning Portland cement, B., 228.
- and Unoza, J., special Portland cements containing a little chromium and manganese, B., 867.
- Aktiebolaget Filtrum, apparatus for treating water or other liquids utilising a regenerating process, (P.), B., 817. Base-exchanging water-softening substances, (P.), B., 828.
- Aktieb. Friberg's Hogvacuum pump. See Wrangle, G. V.
- Aktieb. Reno-Kragar, waterproof linen, (P.), B., 864.
- Aktieb. Separator, centrifugal treatment of liquids, (P.), B., 3, 256. Centrifugal bowls, (P.), B., 3, 689.
- Aktieb. Svenska Fläktfabriken, drying plant [for strip material], (P.), B., 208. Drying apparatus, (P.), B., 335.
- Aktien-Gesellschaft für Bergbau Blei- & Zinkfabrikation zu Stolberg & in Westfalen, zinc from zinc dust, zinc waste, etc., (P.), B., 395.
- Akt.-Ges. Brown Boveri & Co., mercury-vapour rectifiers, (P.), B., 27, 73.
- Akt.-Ges. vorm. B. Siegfried, opium preparation, (P.), B., 251.
- Akt.-Ges. für Stickstoffdünger, calcium cyanamide, (P.), B., 625.
- Aktieselskapet Krystal, crystallisation processes, (P.), B., 609.
- Aktieselskapet Kvaerner Brug, rotary drums, e.g., for rotary cooking boilers, drying apparatus, etc., (P.), B., 176.
- Aktis Akt.-Ges., cracking of heavy oils and apparatus therefor, (P.), B., 52.
- Akulov, N., and Brüchatov, N., quantitative study of rolling texture [of metals], B., 232.
- and Degtiar, M., complex magnetic structure of ferromagnetic single crystals, A., 213.
- and Kondorsky, E., mechanostriktion and the  $\Delta E$  effect, A., 1237.
- Aladdin Industries, Ltd., and Reiss, F. O., parchment-like paper, (P.), B., 960.
- Alakozoff, E., differential flotation of minerals, B., 153.
- Alam, M. S. See Sen-Gupta, M. M.
- Albeaux-Fernet, M. See Fiessinger, N.
- Alben, A. O., Cole, J. R., and Lewis, R. D., new developments in treating pecan rosette with chemicals, B., 245.
- Alber, C. M. See Calhane, D. F.
- Alber, H., and Benedicks, C. [with Bergstedt, J., Grundberg, V., Hasselbohm, S., Sederholm, P., and Treje, R.], microchemical analysis of electrolytically isolated slag inclusions in steel, B., 709.
- Albers, H., intermediate compounds in enzymic reactions, illustrated by means of the catalase- $H_2O_2$  decomposition, A., 862.
- and Hamann, K., oxynitrile of emulsin. I. Synthetic action of emulsin, A., 93.
- Albert, K. See Kurz, H.
- Alberti, B., determination of egg content of pastry, B., 602.
- Alberti, C. See Oddo, B.
- Alberti, L. A., densities and contraction of binary liquid mixtures, A., 1110.
- Alberts, W., welding material suitable for use as welding wire, (P.), B., 154.
- Albertson, W., classification of certain lines of radium, A., 1096. Term system of iridium 1, A., 1219.
- Albin, T. C., comparison of methanol and other anti-freeze agents, B., 1039.
- Albrecht, H., Volkenroda petroleum deposit, B., 659.
- Albrecht, W. A., calcium concentration and  $p_H$  in growth and inoculation of soya beans, B., 164. Inoculation of legumes as related to soil acidity, B., 1073.
- Albrecht, W. H., and Wedekind, E., magnetic investigations on oxides of chromium, A., 212.
- Albright, A. R., hydrate of *m*-5-xylenoxyacetic acid, A., 712.
- and Koppers Co., treatment of hydrocarbon oil produced in gas manufacture, (P.), B., 294.
- Albright, F., Bauer, W., Clafin, D., and Cockrill, J. R., parathyroid physiology. III. Effect of phosphate ingestion in clinical hyperparathyroidism, A., 85.



- Albright, J. G., crystal structure of lithium sulphate, A., 215. Lattice constants and axial ratios of stibnite, A., 215.
- Alco Products, Inc. See Harcourt, G. N., and Jaccobs, G. T.
- Alcock, R. S., tryptophan in blood development, A., 845.
- Alcock, V. G. H., Bloore, R. B., Lindley, W. S., and Burt, P. R., decoration of pottery articles [in mottled or stippled effects], (P.), B., 589.
- Alden, R. C. See Blair, M. G.
- Alder, K., and Stein, G., polymerisation of cyclic hydrocarbons. IV. Stereoisomeric forms of perhydrogenated naphtha- and anthra-quinones, A., 507.
- and Stein, G. [with Eckardt, W., Buddenbrock, R. von, and Schneider, S.], polymerisation of cyclic hydrocarbons. VI. Stereochemistry of cyclopentadiene polymerisation, A., 941.
- and Stein, G. [with Friedrichsen, W.], graduated additive powers of unsaturated ring systems. II., A., 384.
- and Stein, G. [with Grassmann, W.], polymerisation of cyclic hydrocarbons. V. Degradation of polymeric cyclopentadienes with selenious acid, A., 941.
- See also Diels, O.
- Aldis, R. W., shellac-drying oil combinations. I., B., 316. Use of lithopone in shellac paints, B., 398. Shellac-castor oil combinations, B., 398. Orpiment in shellac, B., 399. Reconditioning shellac, B., 399.
- See also Ranganathan, S., and Rangaswami, M.
- Aldred-Brown, G. R. P., and Munro, J. M. H., autogenous urinary proteose in rheumatoid arthritis, A., 181.
- Aldrich, W. W., nitrogen intake and translocation in apple trees following autumn, winter, and spring sodium nitrate applications, A., 198.
- Aleef, B., organic nutrition of *Ankistrodesmus falcatus* (Corda), Ralfs, A., 536.
- Aleynikov, N. A., flotation properties of pine oils, B., 920.
- Aleksandrov, L. A., destructive hydrogenation of Grozni paraffinic petroleum products, B., 1042.
- Aleksandrov, N. P., iodometric determination of thiopyranates, A., 136.
- See also Belopolski, A. P.
- Aleshin, S. N., and Malomakhova, T. A., volumetric determination of adsorption capacity [of soil], B., 802.
- Alewijn, W. F., purification of mercury containing metallic impurities, B., 1062.
- See also Honig, P.
- Alexander, B. H. See Field, A. M.
- Alexander, C. See Jones, G. D. O.
- Alexander, E., high-vacuum spectrograph for chemical analysis with X-rays, A., 1026.
- Alexander, E. R., and Vitamin Co. of America, vitamin fruit composition, (P.), B., 811. Homogenised citrus fruit concentrate, (P.), B., 890.
- Alexander, H. W. See Andrews, A. I.
- Alexander, J., determination of dextrin in presence of glue, B., 559. Movement of diffusible substances in food products, B., 570.
- Alexander, O. C. See Kelsall, A. H.
- Alexandroff, P., road-making oils or bituminous road-making materials, (P.), B., 614.
- Alexandrov, A., determination of small quantities of calcium carbide in slags, B., 226.
- Alexandrov, W., significance of oxidation-reduction conditions for vital staining, especially the nuclear staining of living cells, A., 299.
- Alexandrova, R. S., sugar content of *Cucurbitaceae*, A., 328.
- See also Ushakov, S. N.
- Alexandrova, S. See Schorigin, P. P.
- Alexandrovitsch, N. K., preparation of hydrocarbons with a hemicyclic double linking, A., 703.
- Alexandrovitsch, Z. L. See Koval, P. Z.
- Alexandrovskaja, N. S. See Lissitzin, M. A.
- Alexandru, R., influence of initial grain size on final grain size of crystals during recrystallisation, A., 558.
- Alexeev, B. A. See Kraft, M. J.
- Alexeev, D. V., and Ostroumov, V. Y., action of hydrogen on steel at high temperatures and pressures. I., B., 1058.
- Alexeev, L. M., dressing Kadam-Djaish antimony ore, B., 391.
- and Rozov, B. I., flotation of Sibaevsk copper-iron ore, B., 308.
- Alexeevski, E. V. [with Ratschinski, F. J.], adsorption of mercury vapour by adsorbents and catalysts, and manganese dioxide amalgam, A., 1241.
- Alfa, J., detection of sweetening of completely fermented wine by sterilised must or must in which fermentation has been stopped, B., 761.
- Alfeis, C., damp-proof, non-rotting, and non-swelling protective materials [for buildings], (P.), B., 671.
- Alfend, S., [detection of glycerol in] eggs and egg products, B., 40.
- See also Mitchell, L. C.
- Alfimov, A. G., Samoilov, S., and Soltuisk, S., effect on velocity of evaporation of a liquid of admixtures of other vapours, A., 1249.
- Alfimova, E. See Essin, O.
- Alfvén, H., origin of cosmic radiation, A., 551.
- Algar, J., McCarthy, (Miss) I. B., and Dick, (Miss) E. M., synthesis of diflavones, A., 719.
- Algemeene Kunstzijde Unie Naamlooze Vennootschap, increasing extensibility of artificial threads, especially artificial silk made from cellulose derivatives, (P.), B., 187. [Device for tying up] artificial silk spun cakes, etc., (P.), B., 187. Spinning of artificial silk, particularly viscose silk, (P.), B., 344. Making artificial silk by the bobbin system, (P.), B., 586. Spun cakes of artificial silk, (P.), B., 860.
- Algerino, A., diazonium dichloroiodides, A., 389.
- Aliamovski, N. I., response of oats to phosphate fertiliser, B., 933.
- See also Herov, K. V.
- Alichanian, A. See Kosman, M.
- Alichanov, A. I., and Arzimovič, L. A., total reflexion of X-rays by thin layers, A., 665.
- Alimarin, I. P., and Romm, I. I., determination of boron in silicate rocks and minerals, A., 798.
- Alinari, E., acid soils of the Lardarello zone, B., 560.
- Alkins, W. E., and Cartwright, W., experiments in wire drawing. III. Annealing of H.-C. copper wires drawn to varying degrees of hardness, B., 1061.
- Allan, D., candles and candlemaking, B., 339.
- Allan, J., linoleum and oilcloth, B., 799.
- Allard, G., X-ray study of borides, A., 116. Calculation of electric moments, A., 555. Electronic structure of ethylenic carbon, A., 664.
- Allard, (Mme.) G., refractometric determination of organic acids, A., 593, 621.
- Allard, J. See Dupont, G.
- Alchorne, E. See Bacharach, A. L.
- Allcroft, W. M., and Strand, R., lactic acid, sugar, and inorganic phosphorus of the blood or ruminants, A., 734.
- See also Crichton, J. A.
- Allegheny Steel Co. See Fink, C. G., Sheldon, H. E., and Stroble, C. J.
- Allegretti, L., structure of the emission line 8708 of lithium, A., 547.
- Allegrini, R. See Ponte, A.
- Alleman, I. L. See Stiebeling, H. K.
- Allen, A. J., Franklin, (Miss) R., and McDonald, (Miss) E., correlation of fluorescence spectra with chemical structure of naphthalene derivatives, A., 764.
- Allen, A. L. See Denham, W. S., and Gen. Electric Co.
- Allen, C. E., and Eastman Kodak Co., reclaiming of [photographic] film scrap, (P.), B., 1037.
- Allen, C. F. H., and Ball, W. L., derivatives of diphenyl, A., 394.
- Ball, W. L., and Young, D. M., dihydro-*p*-tolualdehyde, A., 1162.
- and Boyer, R., action of sulphuric acid on derivatives of cyclopropane, A., 1160.
- and Cressman, H. W. J., additive reactions of phenyl vinyl ketone. III. Methyl malonate, A., 950.
- Cressman, H. W. J., and Bell, A. C., preparation of  $\beta$ -chloropropiophenone [and its homologues], A., 825.
- Frame, G. F., Normington, J. B., and Wilson, C. V., condensation of  $\gamma$ -ketonic esters with aromatic aldehydes. II., A., 609.
- and Spanagel, E. W., reactions of anhydroacetonebenzil. I. and II., A., 67, 1164. Structure of the diketone obtained from anhydroacetonebenzil [4-hydroxy-3,4-diphenyl- $\Delta^2$ -cyclopentenone], A., 828.
- and Wells, F. B., evidence for an asymmetrical tervalent arsenic atom, A., 1177.
- Allen, E. M. See Lynn, G.
- Allen, F. B., and Allen-Sherman-Hoff Co., apparatus for handling solids, (P.), B., 371.
- Allen, F. D. C., treatment of [addition of reagents in predetermined proportions to flowing] water, (P.), B., 286.
- Allen, F. W., and Cerecedo, L. R., purine metabolism. II. Fate of guanine in the dog, A., 1195.
- Allen, H. H. See Brooks, D. B.
- Allen, H. S., neutrons and protons in atomic nuclei, A., 1100.
- Allen, J. F., superconductivity of alloy systems, A., 1239.
- Allen, Merle. See Lynn, G.
- Allen, (Miss) Mildred, effect of tension on the electrical resistance of single bismuth crystals, A., 216. Effect of tension on electrical resistance of single antimony crystals, A., 559.
- See also Howe, C. E.

- Allen, *M. C.* See Waksman, *S. A.*
- Allen, *N.*, and Furman, *N. H.*, determination of fluorine by precipitation as tin triphenyl fluoride, *A.*, 136. Potentiometric titration method for fluorine, *A.*, 242.
- and Low, *G. W., jun.*, preparation of sodium hydroxide solutions of low carbonate content by centrifugation, *A.*, 688.
- Allen, *N. P.*, distribution of porosity in copper ingots, *B.*, 350. Distribution of porosity in aluminium and copper ingots with some notes on inverse segregation, *B.*, 1061.
- and Hewitt, *T.*, equilibrium of the reaction between steam and molten copper, *B.*, 350.
- and Street, *A. C.*, effects of hydrogen and oxygen on unsoundness of copper-nickel alloys, *B.*, 350.
- Allen, *O. N.* See Magistad, *O. C.*
- Allen, *R. J.*, and Constant, *F. W.*, absolute saturation of cubic cobalt, *A.*, 1004.
- Allen, *R. P.*, and Schoenfeld, *F. K.*, dispersibility of gas black [in rubber]. I. Methods of measuring gas-black dispersion, *B.*, 978.
- See also Schoenfeld, *F. K.*
- Allen, *S. J. M.*, X-ray absorption coefficients of the light elements and their relations to the various absorption formulae, *A.*, 201.
- Allen, *T. G.* See Silver Springs Bleaching & Dyeing Co.
- Allen, *V. W.* See Thomas, *C. W.*
- Allen, *W. H.*, Macdonald, *F.*, Gale, *W. A.*, and Amer. Potash & Chem. Corp., separation of salts and liquors, (P.), *B.*, 546.
- Allen, *W. M.*, progestin, *A.*, 194.
- Allen, *W. S.* See Gen. Chem. Co.
- Allen & Co., Ltd., *E.*, and Gilbert, *W.*, rotary kilns, dryers, etc., (P.), *B.*, 368.
- Allen-Sherman-Hoff Co. See Allen, *F. B.*
- Alles, *G. A.*, comparative physiological actions of *dl*- $\beta$ -phenylisopropylamines. I. Pressor effect and toxicity, *A.*, 531.
- and Prinzmetal, *M.*, comparative physiological actions of *dl*- $\beta$ -phenylisopropylamines. II. Bronchial effect, *A.*, 868.
- Alley, *J. D.*, and Amer. Brake Materials Corp., composition friction element, (P.), *B.*, 689.
- and Amer. Brake Shoe & Foundry Co., refractory composition for [grey cast iron] brake shoe [repetition] moulds, (P.), *B.*, 711.
- Alley, *O. E.* See Hooker, *S. B.*
- Allgemeine Elektrizitäts Gesellschaft, pneumatic separators, (P.), *B.*, 177.
- Electron-discharge tubes, (P.), *B.*, 353.
- See also Internat. Gen. Electric Co., and Wiegand, *E.*
- Aling, *H. L.*, position of the cotectic line between potash feldspar and plagioclase and their relations, *A.*, 691.
- Allingham, *J.*, metallurgical process, (P.), *B.*, 553.
- Allinson, *J. J.* See Davis, *L. L.*
- Allinson, *J. P.*, and Mott, *R. A.*, coke formation. VII. Influence of oil, *B.*, 849.
- Allis, *W. P.* See Morse, *P. M.*
- Allis-Chalmers Manufacturing Co., and McCoy, *J. P.*, preventing or removing scale or preventing corrosion in boilers and steam-power plants, (P.), *B.*, 2.
- See also Greisen, *E. C.*, and Tenney, *F. L.*
- Allison, *C. L.* See Johnston, *C. G.* and Wright, *S. L.*
- Allison, *F.*, and Bishop, (Miss) *E. R.*, bismuth isotopes, *A.*, 204.
- and Goslin, *R.*, transformation product of potassium, *A.*, 1223.
- Murphy, *E. J.*, Bishop, (Miss) *E. R.*, and Sommer, *A. L.*, detection of element 85 in substances, *A.*, 241.
- See also Goslin, *R.*
- Allison, *F. E.*, Hoover, *S. R.*, and Burk, *D.*, respiration co-enzyme, *A.*, 1080.
- Allison, *J. B.* See Cole, *W. H.*
- Allison, *R. V.*, importance of the use of copper, manganese, and zinc salts in agricultural development of low-moor soils of the Florida Everglades, *B.*, 242.
- Use of less common elements as soil amendments for sugar-cane production in southern Florida, *B.*, 759.
- and Daehnowski-Stokes, *A. P.*, important profiles of organic soils in the Florida Everglades, *A.*, 253.
- Allison, *S. K.*, natural widths of the *K $\alpha$*  X-ray doublet from Fe (26) to Ag (47), *A.*, 881.
- Allmänna Svenska Elektriska Aktiebolaget, arrangement in electric induction furnaces without a closed ferromagnetic circuit, (P.), *B.*, 72.
- Winding for electrical induction furnaces without a closed ferromagnetic circuit, (P.), *B.*, 236.
- Electrical induction furnaces without closed ferromagnetic circuits, (P.), *B.*, 674.
- See also Stromgren, *S.*
- Allmand, *A. J.*, photochemical reaction of hydrogen and chlorine, *A.*, 576.
- and Burrage, *L. J.*, thermodynamical study of systems of the type  $\text{PbCl}_2\text{-RCl-H}_2\text{O}$  at 25°. II, *A.*, 906.
- and Craggs, *H. C.*, photochemical reaction of hydrogen and chlorine, *A.*, 34.
- Allmen, *S. V.* See Berthoud, *A.*
- Allport, *N. L.*, determination of elemental sulphur, *A.*, 1260.
- and Skrimshire, *G. H.*, determination of lead in organic material, with special reference to dyestuffs, *B.*, 11.
- All-Sol Co. See Hey, *Ernest.*
- Allyne, *A. B.*, internal corrosion of gas-transmission lines, *B.*, 98.
- Almagov-Manevich, active components in ceramic ware, *B.*, 228.
- Almasy, *F.*, polyatomic molecules; structure and activation of benzaldehyde. I. Absorption of ultra-violet light by benzaldehyde vapour, *A.*, 1227.
- and Wagner-Jauregg, *T.*, photochemical decomposition of carbonyl chloride vapour, *A.*, 237.
- See also Krupski, *A.*, and Mohler, *H.*
- Almon, *L.*, and Wilson, *P. W.*, bacteriophage in relation to nitrogen fixation by red clover, *A.*, 1208.
- Almqvist, *H. J.*, and Givens, *J. W.*, micro-determination of iodine in eggs, *B.*, 762.
- and Lorenz, *F. W.*, solids content of egg white, *B.*, 762.
- See also Branch, *G. E. K.*, Lorenz, *F. W.*, and Yabroff, *D. L.*
- Almqvist, *J. A.* See Du Pont de Nemours & Co., *E. I.*
- Almy, *E. G.* See Bartell, *F. E.*
- Almy, *G. M.*, and Hause, *C. D.*, spectrum of potassium hydride, *A.*, 1.
- and Sparks, *M.*, absorption spectrum of diatomic bismuth, *A.*, 1096.
- See also Paton, *R. F.*
- Alphen, *J. van*, heterocyclic compounds obtained by interaction of benzoin and hydrazino hydrochloride. I.—III, *A.*, 286, 724, 838. Compounds which give a Beilstein reaction yet contain no halogen, *A.*, 964.
- Alphen, *P. M. van*. See De Haas, *W. J.*
- Alpine Akt.-Ges. Maschinenfabrik & Eisengiesserei. See Gaiser, *O.*
- Alsentzer, *H. A., jun.* See McNabb, *W. M.*
- Alsted, *L. L.*, paper pulp, (P.), *B.*, 14.
- Alston, *J. R.*, and Lowdon, *A. S. R.*, skin reactions to the specific soluble substances of pneumococcus types I and II, *A.*, 1084.
- Alten, *F.*, determination of water supply, nutrient condition, and fertiliser requirement of mineral soils by the method of the Lichterfeld Experimental Station, *B.*, 438.
- and Knippenberg, *E.*, pretreatment of soils for mechanical analysis by the pipette method, *B.*, 881.
- and Weiland, *H.*, colorimetric determination of manganese by means of persulphate, *A.*, 923.
- Colorimetric determination of sodium, *A.*, 1024.
- Determination of nitrate, urea, and ammonia-nitrogen in mixed fertilisers, *B.*, 402.
- Weiland, *H.*, and Knippenberg, *E.*, colorimetric determination of calcium as picrolonate, *A.*, 1262.
- Weiland, *H.*, and Kurmies, *B.*, colorimetric determination of magnesium, *A.*, 1262.
- Weiland, *H.*, and Loofmann, *H.*, colorimetric and nephelometric determination of phosphoric acid, *A.*, 1261.
- Colorimetric determination of aluminium, *A.*, 1263.
- See also Vageler, *P.*
- Alter, *C. M.* See Baxter, *G. P.*
- Altarra Akt.-Ges., sintered magnesia and refractory materials containing sintered magnesia, (P.), *B.*, 703, 1055.
- Alterthum, *H.*, and Reger, *M.*, spectrally pure light sources for photochemical and spectroscopic purposes, *A.*, 801.
- Althausen, *D.*, and Buswell, *A. M.*, sludge-ripeness studies. II. Effect of pressure on digested and chemically treated [sewage] sludges, *B.*, 526.
- Althausen, *T. L.*, Biskind, *G. R.*, and Kerr, *W. J.*, rose-Bengal test of hepatic function; spectroscopic method, *A.*, 1190.
- Alther, *J. G.*, and Universal Oil Products Co., cracking of hydrocarbon oils, (P.), *B.*, 776.
- Conversion of hydrocarbon oils, (P.), *B.*, 854.
- See also Dubbs, *C. P.*, and Morrell, *J. C.*
- Althiermo Engineering Co. See Anderson, *John H.*
- Altmannsberger, *K.*, spreading power of chromic acid baths [for electroplating], *B.*, 393.
- Altner, *W.*, detection of citric acid in its compounds, *B.*, 776.
- Alton, *W. H.*, and Vanderbilt Co., *R. T.*, plastic wall coating [for producing textured finishes], (P.), *B.*, 918.
- Alty, *T.*, maximum rate of evaporation of water, *A.*, 217.
- Diffusion of monatomic gases through fused silica, *A.*, 565.
- Aluminium, Ltd., [copper-silicon-nickel] aluminium base alloys [for pistons], (P.), *B.*, 554.
- Aluminium-base alloys, (P.), *B.*, 794.
- Working of aluminium-base alloys, (P.), *B.*, 874.

- Aluminium, Ltd., [grain-refining of] aluminium-base alloys, (P.), B., 1064.  
Aluminium-magnesium alloys, (P.), B., 1064.
- Gitzen, W. H., and Wagner, G. H., fluorine compounds of aluminium, (P.), B., 60.
- Greeman, O. W., and Lilly, H. A., froth-floatation processes [for fluorspar concentration], (P.), B., 592.
- and Keith, W. D., purification of aluminium or aluminium-base alloys, (P.), B., 395.
- Aluminium Colors, Inc. See Bengston, H.
- Aluminum Co. of America. See Archer, R. S., Barnitt, J. B., Bossert, T. W., Churchill, E. V., Derr, R. B., Dix, E. H., jun., Frary, F. C., Gingerich, E. M., Heiser, H. W., Horsfield, B. T., Kappes, W. R., Lane, N. B., Morrow, J. E., Pacz, A., Smith, E. D., and Wagner, G. H.
- Alvarez, W. C. See Osterberg, A. E., and Vanzant, P. R.
- Alves Filho, J. E. See Taveira, M.
- Alvord, E. B., and Dietz, H. F., control of insects on plants by chemical means; recent developments, B., 647.  
See also Grasselli Chem. Co.
- Alway, F. J., and Kittredge, J., jun., forest floor under stands of aspen and paper birch, B., 484.
- Alyea, H. N. See Frost, A. A., and Jeu, K. K.
- Amagasa, M. See Nishizawa, K.
- Amaldi, E., Raman effect in CO, A., 113.  
Distribution of molecules in liquids, A., 1011.  
and Placzek, G., Raman spectrum of gaseous ammonia, A., 446.  
and Segre, B., series of alkaline atoms in an electric field, A., 1095.
- Amann, O. V., and Mouro, (Mlle.) G., comparative excretion of neutral sulphur in endogenous and exogenous nitrogen metabolism, and its significance, A., 418.
- Amantea, G., and Famiani, V., possibility of obtaining persistent beri-beri phenomena by deprivation of vitamin-B, A., 324.
- Amargós, J. See Torres, C.
- Amati, A. See Mezzadrol, G.
- Amati, L., possible action of short electromagnetic waves on definite chemical compounds, A., 238.
- Amber Size & Chemicals Co., Ltd. See Rodewald, G.
- Amberson, W. R., and Armstrong, P. B., respiratory metabolism of *Fundulus heteroclitus* during embryonic development, A., 855.
- Armstrong, P. B., and Root, W. S., oxygen consumption without carbon dioxide production in acidified tissues, A., 1324.
- and Höber, R., permeability of mammalian salivary glands for organic non-electrolytes, A., 310.
- Mulder, A. G., Steggerda, F. R., Flexner, J., and Pankratz, D. S., mammalian life without red blood-corpuscles, A., 1064.
- Ambler, H. R., and Sutton, T. C., detection of traces of carbon monoxide in air, B., 653.
- Ambrose, A. M., Power, F. W., and Sherwin, C. P., detoxication of phenylacetic acid, A., 1075.
- Ambrose, H. A., and Loomis, A. G., chemical treatment of rotary drilling fluids; stabilisation of weighted dispersions: effect of  $p_{H_2}$  value, B., 950.
- Amburgya, M. S., and Amer. Rolling Mill Co., metal-heating furnace, (P.), B., 471.
- Amdur, I. [with Robinson, A. L.], recombination of hydrogen atoms. I., A., 582.  
See also Robinson, A. L.
- Amelink, F., microchemical identification of alkaloids, A., 80. Microchemical identification of alkaloids [dilaudide], A., 173. Microchemical identification of alkaloids [lunasin and lunacrine], B., 91.
- Amelung, H., effect of preserving agents and spices on digestion of proteins, B., 889.
- Amenabar, A., extraction of copper from its ores, (P.), B., 793.
- American Agricultural Chemical Co. See Milligan, C. H., and Sebastian, R. J.
- Amer. Air Filter Co., Inc. See Birkholz, H. E.
- Amer. Anode, Inc. See Howard, H. C., Newton, H. B., Sheppard, S. E., and Sprunger, V. J.
- Amer. Bemberg Corporation. See Zart, A.
- Amer. Bitumuls Co. See Thompson, L. G.
- Amer. Bottlers of Carbonated Beverages. See Buchanan, J. H.
- Amer. Brake Materials Corporation. See Alley, J. D.
- Amer. Brake Shoe & Foundry Co. See Alley, J. D., and Poe, F. M.
- Amer. Brass Co. See Bassett, W. H., Hook, I. T., and Weibert, L. P.
- Amer. Briquet Co. See Wolf, C. S.
- Amer. Can Co. See McConkie, J. E.
- Amer. Cement Paint Co. See Moross, W. P. D.
- Amer. Chemical Paint Co. See Gravell, J. H.
- Amer. Chicle Co. See Geller, L. W., and Gordon, M. A.
- Amer. Container Corporation. See Chamberlain, R. N.
- Amer. Cyanamid Co., fumigating material, (P.), B., 366.  
and Bradley, T. F., polyhydric alcohol-polybasic acid resins, (P.), B., 837.  
See also Barsky, G., Bradley, T. F., Buchanan, G. H., Christmann, L. J., Clark, C. B., Cooper, K. F., Falconer, S. A., Falter, P. H., Heuser, R. V., Martin, R. B., Romieux, C. J., Swainson, S. J., and Williams, A. O.
- Amer. Electric Furnace Co. See Hanson, A. J.
- Amer. Face Brick Research Corporation. See Hathaway, W., Lee, S. Q., Slidell, K., and Wyatt, E. M.
- Amer. Fork & Hoe Co. See Fifield, A. F.
- Amer. Glanzstoff Corporation. See Bitter, L. J., Ellsner, R., Erlanger, A. L., Schmidt, K., Schulz, W., and Stöckly, J. J.
- Amer. Laundry Machinery Co. See Reese, L. V.
- Amer. Lecithin Corporation. See Sollmann, E. I.
- Amer. Lime & Stone Co. See Keller, C. W.
- Amer. Lurgi Corporation. See Girsewald, C. (Baron) von, Kohlmeier, J., Maschmeyer, H., Schiechel, M., and Wefelscheid, P.
- Amer. Machine & Foundry Co. See Diederichs, P. O., and Hawkins, W. J.
- Amer. Magnesium Corporation, and Wood, R. T., magnesium-base alloys, (P.), B., 395.  
Wood, R. T., and Block, H. H., magnesium-base alloys, (P.), B., 71.  
See also Wood, R. T.
- Amer. Magnesium Metals Corporation. See Norton, R. J., and Wetherill, J. P.
- Amer. Maize Products Co. See Woxvold, E.
- Amer. Metal Co., Ltd. See Burkey, H. M., Ogden, D. L., and Weinig, A. J.
- Amer. Optical Co. See Wrighton, W. J.
- Amer. Ore Reclamation Co. See Shallock, E. W., and Swinehart, G. E.
- Amer. Ozone Co. See Daily, J. M.
- Amer. Potash & Chemical Corporation, anhydrous borax (sodium tetraborate), (P.), B., 146.  
See also Allen, W. H., Chesny, H. H., Gale, W. A., and Ritchie, C. F.
- Amer. Pulverizer Co. See Elzemeyer, E. E.
- Amer. Rolling Mill Co. See Amburgya, M. S., Murphy, A. F., and Tytus, J. B.
- Amer. Sheet & Tin Plate Co. See McElhaney, J. R., and Whetzel, J. C.
- Amer. Smelting & Refining Co., purifying an opacifying agent [sodium antimonate] for enamels, glazes, and glasses, (P.), B., 18. Incorporation of arsenic in lead or a lead alloy, (P.), B., 473. Separating cadmium from material containing cadmium and other metals or compounds thereof, (P.), B., 635\*. Refining of metals [lead], (P.), B., 713. Separation of gases, (P.), B., 736. Extraction of cadmium from its oxy-compounds, (P.), B., 794.  
See also Bartholomew, G. P., Betterton, J. O., Burt, C. C., Gonser, B. W., Gross, W. F., Hughes, S., Moore, R. S., Teats, R., and Wagstaff, R. A.
- Amer. Soap & Glycerine Producers, Inc., Assoc. of. See under Association of American Soap & Glycerine Producers, Inc.
- Amer. Society for Testing Materials, tentative standards, B., 447. Supplement to Book of Standards, B., 447.
- Amer. Solvents & Chemical Corporation. See Crowell, R. B.
- Amer. Steel & Wire Co. of New Jersey. See Skinner, M. C.
- Amer. Tar Products Co., Inc., Rhodes, E. O., Volkman, E. W., and Fitzpatrick, J. C., apparatus for charging coke ovens, (P.), B., 100.  
See also Hyde, E. H., and Rhodes, E. O.
- Amer. Thermos Bottle Co. See Schlumbohm, P.
- Amer. Voith Contact Co., Inc. See Lang, R. T.
- Amer. Waterworks Association, Committee on control of Tastes and Odours [in water supplies], report, B., 125.
- Amersil Co., Inc. See Johnson, C. R.
- Ames, J. W., and Kitsuta, K., assimilation of phosphorus and potassium by barley plants grown according to Neubauer procedure and in undiluted soil, B., 402.
- Amiel, J., slow combustion of benzene, A., 600. Products of slow combustion of benzene, A., 815. Slow combustion of benzene: velocity of the reaction, A., 1249.
- Amiesite Asphalt Co. of America. See Hepburn, D. McK.

- Amieva, M. M., jun., and Fuller & Co., W. P., phthalic anhydride resins, (P.), B., 677.
- Aminoff, G., lattice dimensions of armangite, A., 482. Lattice dimensions of thaumasite, A., 482. Interference pattern obtained by irradiation of single brucite crystals with rapid electrons, A., 658.
- [with Blix, R.], adelite and its relation to tilasite, A., 482. "Weslicenite" and atopite, A., 482. Structure and composition of swedenborgite, A., 482.
- Amiot, R., adsorption by charcoal of phenols and polyalcohols from aqueous solution, A., 899.
- Amira Trust, and Welker, J. P., photo-sensitive material [for colour photography], (P.), B., 93.
- Ammen, I. G., and Internat. Agricultural Corp., treating trisodium phosphate crystals, (P.), B., 703.
- Ammerman, C. P. See Pasternack, R.
- Ammerschläger, J., diagnostic utilisability of peptolytic enzymes in trans- and ex-udates, A., 1192.
- Ammon, M. G. See McIntyre, G. H.
- Amoss, W., and Structural Gypsum Corp., calcination of gypsum, (P.), B., 464.
- Ampt, G. See Norris, J. H.
- Amsbary, F. C., jun., ammonia-chlorine treatment [of water] at Champaign-Urbana, Ill., B., 1087.
- Amsler, W. O., and Caruthers, P. R., treating metal [steel], (P.), B., 834.
- and Hartford-Empire Co., apparatus for melting glass, (P.), B., 787. Rotary glass-melting furnace, (P.), B., 787.
- Anaconda Copper Mining Co. See Gardiner, H. C., and Mitchell, W. E.
- Anaconda Wire & Cable Co. See Bassett, W. H.
- Ananthavaidyanathan, N. See Chakravarti, S.
- Anastasiades, M., new rectifier, B., 1064.
- Ancelle, A., simultaneous effect of degree of cold-work and temperature on mechanical properties of mild steel, copper, and nickel, B., 870.
- Ancot, E., and Wiede's Carbidwerk Freyung m.b.H., synthetic spinel, (P.), B., 107.
- Andauer, M., and Lange, E., nature of dropping mercury electrode; non-applicability of thermodynamical equilibrium considerations to solutions of indefinitely small concentration, A., 128. Heats of dilution of potassium chlorate and perchlorate at high dilution at 15° and 25°, A., 784. Variation with concentration of Volta potential in systems Ag[Ag<sub>2</sub>] and Cu[Cu<sub>2</sub>], A., 1121.
- Anders, O., cryoscopic effects in mixtures of solvents and their relation to solubility of solute, A., 565.
- Andersch, M., and Gibson, R. B., colorimetric determination of plasma-proteins, A., 1181.
- Andersen, A. See Malm, C. J.
- Andersen, A. C., Langmack, P., and Winther, J. E., composition and heat of combustion of Danish cow's milk, A., 412.
- Andersen, B., determination of activity of pepsin and rennin in stomach contents, A., 863.
- Andersen, E. B., and Asmussen, R. W., Faraday effect of some uni-univalent electrolytes in aqueous solutions. I. and II., A., 22.
- Andersen, O., and Lee, H. C., properties of tricalcium silicate from basic open-hearth steel slags, A., 916.
- Anderson, A. A. See Howes, R. T.
- Anderson, A. B., and Sherrard, E. C., dehydroperillic acid, an acid from Western red cedar (*Thuja plicata*, Don.), A., 1159.
- Anderson, A. E. See Swainson, S. J.
- Anderson, A. F., Schloss, O. M., and Stuart, H. C., biological relationship between cow's, goat's, and human caseinogens, A., 412.
- Anderson, A. K., Everitt, E. L., and Adams, P. D., carbon metabolism of *Fusarium oxysporum* on glucose, A., 752.
- Rouse, A. H., and Letonoff, T. V., colorimetric determination of tartaric acid, A., 258.
- and Triebold, H. O., irradiated milk, B., 248.
- See also Parsons, C. S.
- Anderson, A. R., and Short, W. F., preparation of chloromethylnaphthalenes and 1:5-dimethylnaphthalene, A., 704.
- Anderson, C. A., volcanic history of Glass Mountain, Northern California, A., 1267.
- Anderson, C. D., positive electron, A., 441.
- Free positive electrons resulting from the impact on atomic nuclei of the photons from thorium-C'', A., 658. Cosmic-ray positive and negative electrons, A., 1100.
- Anderson, C. T., heat capacities of sodium carbonate and hydrogen carbonate and of silver carbonate at low temperatures, A., 1119.
- Anderson, C. W., determination of small quantities of antimony in solder in presence of iron, B., 232.
- Anderson, D. A., production of gum by certain species of *Rhizobium*, A., 752.
- See also Walker, R. H.
- Anderson, D. L., and Oberphos Co., preparation of phosphatic fertiliser, (P.), B., 567.
- Anderson, Ernest, preparation of l-galactose from linseed mucilage, A., 544.
- Anderson, Erald, effect of tube diameter in cyclonic dust collectors, B., 1039.
- and Internat. Precipitation Co., separation of suspended material from gases, (P.), B., 177. Apparatus for separating solids from gases, (P.), B., 289.
- Anderson, E. A., life of plated zinc as affected by thickness of the coating, B., 109.
- Werley, G. L., and New Jersey Zinc Co., zinc-base die-casting alloy, (P.), B., 112.
- Anderson, E. M. See Collip, J. B.
- Anderson, E. X. See Froemke, J. A.
- Anderson, H. G. See Cellulose Acetate Silk Co.
- Anderson, H. H. See Emerson, G.
- Anderson, H. V., and Chesley, K. G., X-ray study of transformation of marcasite into pyrite, A., 482.
- See also Beal, G. F.
- Anderson, I. L. See Burt, C. C.
- Anderson, J. A., yellow colouring matter of Khapli wheat, *Triticum dicoccum*. III. Constitution of tricin, A., 1168.
- Anderson, J. F., Leonard, G. F., and Holm, A., non-specific flocculation of diphtheria antitoxin, toxin, and toxoid and its bearing on the Lf titre, A., 984.
- Anderson, J. H. See Dunlop Rubber Co.
- Anderson, John H., cracking and gasifying hydrocarbons, (P.), B., 539.
- and Altitthermo Eng. Co., apparatus for cracking and distilling hydrocarbons, (P.), B., 456.
- Anderson, J. M., duration of metastable states: neon, A., 1.
- Anderson, J. N. See Boggs, W. B.
- Anderson, J. S., carbon-oxygen linking in the metal carbonyls, A., 113.
- See also Hieber, W.
- Anderson, K. E. See Eisenstein, J.
- Anderson, L. C., colour of solutions of di- and tri-phenylmethanes in sulphuric acid, A., 386. Halochromism of ketones in acids, A., 661.
- See also Halford, J. O.
- Anderson, L. D. See Walker, H. G.
- Anderson, M. S., and Byers, H. G., character and behaviour of organic soil colloids, B., 1024.
- Anderson, P. J., Swanback, T. R., and Street, O. E., potash requirements of tobacco crop, A., 102.
- Anderson, R. J., lipins of tubercle bacilli. XXVIII. Phthioic acid; isolation of a levorotatory acid from phthioic fraction of human tubercle bacillus, A., 97.
- and Newman, M. S., lipins of tubercle bacilli. XXXIII. Isolation of trehalose from acetone-soluble fat of human tubercle bacillus. XXXIV. Isolation of a pigment and anisic acid, A., 984, 1083.
- See also Newman, M. S., and Pangborn, M. C.
- Anderson, R. O., still, (P.), B., 288.
- Anderson, R. S., chemistry of bioluminescence. I. Determination of luciferin, A., 968.
- Anderson, T. F. See Yost, D. M.
- Anderson, W. C., and Mason, M. C., cereal treatment process, (P.), B., 90.
- Anderson, W. P. See Shiffler, W. H.
- Anderson, W. T., jun., Fraser, H. D., and Hanovia Chem. & Manufg. Co., electrode for vapour gas electric devices, (P.), B., 835.
- Anderson, Y. See Edin, H.
- Andersson, B., cozymase activation of dehydrogenases, A., 862.
- Andersson, E. See Hedvall, J. A.
- Ando, K., influence of guanidine derivatives on insulin hypoglycaemia, A., 322.
- Ando, S., mechanism of catalytic hydrogenation of phenol under high pressure. II. and III., A., 60, 498. Products of hydrogenation of phenolic oil from low-temperature tar. I. and II., B., 452. Catalytic hydrogenation of phenolic oil in low-temperature tar. I., B., 738.
- Andrade, E. N. da C., and Chalmers, B., resistivity of polycrystalline wires in relation to plastic deformation, and mechanism of plastic flow, A., 14.
- André, E., fractional extraction applied to analysis of fats and mixed hydrocarbons of high mol. wt., B., 353.
- and Bessé, C., castor oil. II. Variations in oil from different varieties of *Ricinus communis*, B., 75.
- and Bloch, Armand, presence of ethers of glycerol in various liver oils of clasmobranchs and certain specific analytical characteristics of these oils, B., 354.
- and Canal, H., castor oil. III. Rotatory power, B., 75.

- Andreas, A., apparatus for treating material with gases, (P.), B., 177.
- Andreatta, C., synthetic bianchite, A., 37.
- Andréev, C. C. See Roginski, S. Z.
- Andreev, D. N. See Petrov, A. D.
- Andreev, I. E. See Vanine, S. I.
- Andreev, S., and Georgievsky, S., dependence of fermenting power of intestinal juice on diet. I. Amylolytic enzyme, A., 178.
- Andreev, V. See Dubinin, M. M.
- Andréev, V. A., use of seaweeds in alkaline dyeing, B., 666.
- Andreeva, A. I. See Shvedov, D. A.
- Andres, E. J. See Langley, D. D.
- Andres, L. E. See Hackspill, L.
- Andresen, K. G., and Nielsen, B., micro-determination of copper by cysteine oxidation method, A., 793.
- Andresen, O., concentration of pulp-water, (P.), B., 382.
- Andrew, B. J. See Moore, C. U.
- Andrew, J. H., and Peile, J. B., effect of tin as an impurity in mild steels, B., 919.
- Andrew, V. J., relative intensities of the  $L\alpha_1$ ,  $\beta_1$ ,  $\beta_2$ , and  $\gamma_1$  lines in tantalum, tungsten, iridium, and platinum, A., 201.
- Andrews, A. I., and Breen, J. P., X-ray investigation of opacifying compounds present in sheet-iron cover enamels, B., 705.
- Clark, G. L., and Alexander, H. W., determination by X-ray methods of crystalline compounds causing opacity in enamels, B., 866.
- and Smith, R. K., thermal expansion of sheet-iron ground-coat enamels, B., 705.
- Andrews, B., refining of [native sulphur] ore, (P.), B., 61.
- Andrews, C. H. See Smith, W.
- Andrews, C. W., Boynton, A. J., and Brassert & Co., H. A., treatment of oil gas, (P.), B., 953.
- Rogers, R. D., and C.P.T. Development Co., cracking of petroleum vapours, (P.), B., 952.
- See also Knowles, A. S.
- Andrews, Clarence W., and Thompson & Co., tobacco bleaching, (P.), B., 44.
- Andrews, D. H. See Deitz, V. R.
- Andrews, E., Dostal, L. E., Coff, M., and Erdina, L., mechanism of cholesterol gallstone formation, A., 301.
- Dostal, L. E., and Erdina, L., etiology of gallstones. IV. Is cholesterol excreted by the gall-bladder mucosa? A., 971.
- Andrews, G. G. See Goodyear Tire & Rubber Co.
- Andrews, H. I. See English Electric Co.
- Andrews, J. C., racemisation and oxidation of cystine in acid solution, A., 1149.
- and Andrews, (Miss) K. C., decomposition of the phenylhydantoin of cystine, A., 1149.
- and Johnston, C. G., absorption of certain sulphur compounds from intestinal loops of dogs, A., 1075.
- Andrews, J. S. See Sherwood, R. C.
- Andrews, J. T. R., saponification value of coconut oil fatty acids, B., 1017.
- Andrews, J. W. See Western Electric Co.
- Andrews, (Miss) K. C. See Andrews, J. C.
- Andrews, L. V., and Brown, D. J., determination of isoelectric point [of aqueous lead monoxide], A., 572.
- Andrews, M. J. See Thompson, M. R.
- Andrews, R. S. See Broadhead, C. F.
- Andrews, S., and Milroy, J. A., micro-determination of pentoses, free and combined. I., A., 1278.
- Andrews, T. See Rose, Downs & Thompson, Ltd.
- Andrews, W. See Inglis, N. P.
- Andrianov, P. I., calorimeter for determining the heat of wetting of soils, B., 242.
- Andriessen, A., highly transparent rubber goods, B., 31.
- Andrik, L., and Kucera, C., effect of ultra-violet irradiation and administration of iodine on biological value of milk, A., 1319.
- Andrus, E. C. See Buell, M. V.
- Andrus, W. De W., Guest, G. M., Gates, R. F., and Ashley, A., blood in high intestinal obstruction. II. Relation between "toxæmia" and chemical changes, A., 86.
- See also Guest, G. M.
- Andrussow, L. See I. G. Farbenind.
- Andrzejewski, H., effect of addition of salts on isoelectric point of proteins. III., A., 24.
- Angel, F., spodumene and beryl in pegmatites near Graz, A., 252.
- Angel, M. See Lobstein, E.
- Angelescu, E., and Dutchievici, O., hydration of various electrolytes, determined by the partition of an aliphatic acid between benzene and water, A., 221.
- and Popescu, V. D., influence of various alkalis and of the solvent on rate of iodometric oxidation of thiocyanate, A., 232.
- Angelescu, J. See Maxim, N.
- Angeletti, A., rapid determination of cyanogen and mercury in mercury oxycyanide, A., 383.
- Action of fungi on solutions of aldoses and other carbohydrates. VII. Formation of *d*-gluconic acid from maltose, A., 638.
- Ditolyl series. V. Resolution into optical antipodes of *dl*-2-iodo-2'-amino-6:6'-dimethyldiphenyl, A., 705.
- Action of various fungi on aldoses and related substances, A., 1332.
- and Ponte, D., action of fungi on solutions of aldoses and other carbohydrates. VI. Formation of oxalic acid from *d*-gluconic acid. VIII. A., 428, 1206.
- Angeletti, M. See Corbellini, A.
- Angelini, V., chrome-nickel-iron alloys (rustless iron or steel), (P.), B., 712.
- Angell, C. H., and Universal Oil Products Co., treatment of hydrocarbon oil, (P.), B., 854.
- Angell, F. G. See King, H. J. S.
- Anger, P., pulverising of materials by jet impact, (P.), B., 3.
- Means of classifying materials in jet impact pulverisers, (P.), B., 576.
- Angerer, E. von, and Funk, H., helium content of natural gas, A., 587.
- Anglo-Persian Oil Co., Ltd., Dunstan, A. E., and Hague, E. N., treatment of hydrocarbon gases, (P.), B., 258.
- and Hartley, A. C., separation of gases from liquids, (P.), B., 898.
- Angus, W. R., diamagnetic susceptibility of the rare gas atoms according to Slater's method, A., 1104.
- Anido, F. See Hermano, A. J.
- Animal Food Products, Ltd. See Stewart & Co., D.
- Anisimov, N. G. See Saldau, P. J.
- Anker, C., Haug, K., and Stephansen, E., sources and limits of error in determination of ground-wood and pulp in paper, B., 223.
- Annen, H., errors in gluten determinations, B., 842.
- Annetts, M., filtration phenomena in colloids, A., 124.
- Annicq, J., dyeing of warp threads in a beamed condition, (P.), B., 745.
- Annis, H. M., improved wax test for measuring coated paper sizing, B., 186.
- Anode Rubber Co., Ltd., and Magyar Ruggyantaaruggar Részvenytársaság, articles of porous or microporous rubber, (P.), B., 32.
- Rubberised fabric made from fibrous material, (P.), B., 32.
- [Rubber-coated] hard-cardboard sheets and articles, (P.), B., 224.
- and Sprunger, V. J., rubber goods [from latex], (P.), B., 1022.
- and Szegvari, A., goods containing rubber, (P.), B., 32.
- See also Dunlop Rubber Co.
- Anosov, V. Y., and Tschirkov, S. K., volumetric analysis of fluosilicic acid, A., 583.
- Equilibrium of the system  $\text{Na}_2\text{SiF}_6\text{-NaCl-H}_2\text{O}$ , A., 782.
- and Ustj-Katschkintzev, V. F., action of dilute hydrochloric acid on phosphorites, B., 701.
- Utilisation of dilute hydrochloric acid obtained in the production of sodium silicofluoride, B., 962.
- Ansbacher, S., treatment of tuberculosis by copper salts, A., 854.
- Anselmi, E., pocket optical instrument for testing organic liquids [especially urine], (P.), B., 813.
- Anselmino, K. J., and Hoffmann, F., preparation properties, and occurrence, of an antithyroid protective substance from blood and tissues, A., 754.
- Anstey, H. C., notes on copper-rich alloys, B., 309.
- Antheaume, J. See Decarrière.
- Anthony, A. J., determination of hydrogen by combustion, A., 362.
- Antipov-Karataiev, I. N., [determination of soil constituents], B., 483.
- and Krasikov, K. N., application of electrofiltration, electrodialysis, and electrolysis to soil analysis. I., B., 759.
- and Miasnikova, A. M., colorimetric picrate method for [determining] potassium, A., 922.
- Volumetric cobaltinitrite method for [determining] potassium, A., 922.
- and Rabinerson, A., reversal of soil charge by acids and adsorption of anions, B., 803.
- Anton, E. See Braun, J. von.
- Antonemkov, F. See Juschkevitsch, S.
- Antoniani, C., phytosterols. II. Sterols of rice oil, A., 391.
- and Nicolini, M., utilisation of phosphorite and leucite by soils, B., 201.
- Neubauer method for determination of assimilable phosphoric acid and potash in soil, B., 402.
- and Zanelli, F., cholesterol of the human brain, A., 176.
- Antonov, G. N., conditions of equilibria between two phases, A., 1118.
- and Freedland, J., pure carbon in finely-divided state, (P.), B., 739.
- Antropoff, A. von, behaviour of argon and krypton with fluorine in electrical discharges, A., 914.
- [with Steinberg, F.], adsorption of nitrogen by carbon at high pressures, A., 898.

- Antropoff, A. von, Frauenhof, H., and Krüger, K. H., isolation of halogen compounds of the rare gases, A., 578.
- Antusz, L. I., preparation of [ethyl] alcohol from wood, B., 985.  
See also Petrov, A. D.
- Anxionnaz, R. See Mazé, P.
- Anzlovar, V. M., aging of cement under influence of atmosphere, B., 148.
- Ao, T., action of catalysts on the dehydration of Katô kaolin, A., 235. Rapid rational analysis for burnt clay by the 8-[hydr]oxyquinoline acetate method, B., 268. Thermal and hydrothermal syntheses of mullite, A., 1257.
- Aoki, K., succinic acid in shellfish, A., 967.
- Aoki, S. See Oosugi, S., and Suzuki, Kozo.
- Aoki, T., choline. II. Choline in the organism, A., 1318.
- Aono, T., permeability of gases and vapours through packing papers and a simple measuring apparatus, B., 57.
- Aoyama, K. See Bito, K.
- Apar, F. A., and Sinclair Refining Co., alkyl esters of sulphuric acid [from mixed hydrocarbons], (P.), B., 11.
- Apollo Metal Works. See Block, D. J.
- Appareils & Evaporateurs Kestner, concentration of nitric acid, (P.), B., 426. concentration of sulphuric acid to a high density, (P.), B., 463. Ammonium sulphate, (P.), B., 865.
- Appel, H., increase in reaction velocity of tertiary acids by the presence of a carbonyl group in the  $\gamma$ -position, A., 911.  
See also Bumm, E., and Helferich, B.
- Appelsis, A. See Sachs, A.
- Apperly, F. L., and Norris, J. H., ketogenic diet in normal individuals, A., 1193.
- Apple Electrical Manufacturing Co. See Kessler, J. J.
- Appleyard, E. T. S., electronic structure of the  $\alpha$ -X band system of nitrogen, A., 1220.
- Applied Sugar Laboratories, Inc. See Jordan, S.
- Apsits, J., soil cultivation, B., 882.
- Aquatone Corporation. See John, R.
- Aquino, D. I., sulphur-oxidising bacteria, A., 866.
- Arai, T. See Koyauagi, K.
- Arakatsu, B., anomalous absorption of  $\gamma$ -rays; possibility of the quantum jump of the rest-mass of an electron, A., 659.  
and Kimura, K., activation of air by the electrodeless ring discharge, A., 656.  
and Uemura, Y., electrodeless ring discharge through potassium vapour, A., 655.
- Arakawa, B., and Ono, T., incandescence electric lamps, (P.), B., 26.
- Arakawa, N., relation of liver function to amount of guanidine and sugar in the blood, A., 1071.
- Arakawa, S. See Itano, A.
- Arakelyan, A. See Tolbin, I.
- Araki, S., [formation of] ketones, A., 809.
- Araki, T., and Nagaomote, S., viscosity and jelly strength of acetylcellulose, B., 501.
- Arany, A., chemical composition of Hungarian lowland [alkali] soils, B., 240.
- Arbiter, N. See Goodman, M.
- Arbusov, B. A., presence of conjugated double linkings in abietic acid, A., 392. Isomerisation of  $\alpha$ -pinene to an aliphatic terpene. I. and II. Examination of the aliphatic terpene, A., 717.
- Bastanova, L., Ivanova, E., Kozlovskaya, L., Maltzeva, A., and Fedotov, V., turpentine from *Pinus pithusa*, B., 237.
- Archangelskaja, N. K. See Iljin, B. V.
- Archangelski, A. D., and Rozhkova, E. V., accumulation of copper in sedimentary rocks, A., 1030.
- Archer, C. T. See Gregory, H. S.
- Archer, R. S., and Kempf, L. W., aluminium-magnesium alloys, (P.), B., 313.  
Kempf, L. W., and Aluminum Co. of America, aluminium-silicon alloys, (P.), B., 71.  
See also Jominy, W. E.
- Archibald, F. M., Lebo, R. B., and Standard Oil Development Co., direct esterification of alkyl sulphates, (P.), B., 12.
- Archibald, J. G., Nelson, P. R., and Bennett, E., three-year study of chemical composition of grass from plots fertilised and grazed intensively, B., 164.  
See also Lindsey, J. B.
- Archibald, R. M., anodic oxidation of benzene, A., 358.  
See also Clark, R. H.
- Archinard, (Mlle.) M. I., influence of distillation on the grouping of radioactive atoms, A., 334.
- Archipova, N. See Michailova, O.
- Arctowski, H., and Gottlieb, I., eastern Galician petroleum, B., 818.
- Ardagh, E. G. R., Roome, R. M. B., and Owens, H. W., corrosion of iron in sodium chloride solutions, B., 1011.
- Ardashev, B. I., chemical delinting of cottonseed and industrial utilisation of the lint, B., 541. Constants of cotton waste removed from cottonseed by action of hydrogen chloride at room temperature, B., 618.  
and Leonov, B. I., ash constituents of cotton fibres at various stages of maturity, B., 185.
- Arditti, G., autoxidation of paraffin oil, B., 137.
- Arditti, R., system  $\text{MgSO}_4\text{-H}_2\text{SO}_4\text{-H}_2\text{O}$ , A., 676.
- Aref, H., and Cruess, W. V., composition of fruit beverages, B., 603.
- Arend, J., and Lobe, M., effect of adding small quantities of titanium to constructional steels, B., 629.
- Arend, J. P., genetic peculiarities of the Bryce basin and their relation to distribution, constitution, and metallurgical properties of the oolitic [iron] minerals, A., 1031. Composition and structure of sedimentary strata as dependent on organic equilibria, A., 1267. Formation of oolitic deposits and terrestrial movements, A., 1267.
- Arend, K. V., occurrence of potassium in Tarapacá province [Chile], A., 45.
- Arens, H., spectro-photometry in the ultra-violet, A., 336. Solarisation. VI. Solarisation by physical development, A., 577. Nature of the latent image for physical development. IV., A., 791.
- Arii, K., transition point of sodium sulphite, A., 465. Vapour pressures of the heptahydrate and saturated solution of sodium sulphite, A., 465.
- Arii, K., equilibrium of the system sodium sulphite-sodium pyrosulphite-water, A., 465. Vapour pressure of corrosive substances, A., 668.
- Arimoto, K. See Fujimaki, Y.
- Ariyama, M., and Kobayashi, Y., glyoxalase and its co-enzyme. I., A., 425.
- Ariyama, T., glycolytic enzyme in liver of animals with vitamin-B deficiency; effect of iodine in avitaminosis-B, A., 756.
- Arkel, A. E. van, connexion between dipole moment and cohesive forces, A., 8.  
and Bruggen, M. G. van, plastic torsion, recrystallisation, and solidification of aluminium, A., 452.  
and Snoek, J. L., relation between dipole moment and cohesion forces. II. and III., A., 888.
- Arkhangelski. See under Archangelski.
- Arkroyd, W. R., effects of parboiling and milling on antineuritic vitamin (B<sub>1</sub>) and phosphate content of rice, A., 99.
- Arland, A., determination of fertiliser requirement of soils by means of transpiration rates of plants, B., 402.
- Arlender, F., theory of [rosin] sizing of paper, B., 343.
- Armangué, M., Gonzalez, P., and Romero, S., rôle of lipins in Forssman antigens, A., 624.
- Armbruster, R. See Dyckerhoff, H.
- Armeanu, V. See Spacu, G.
- Armenault, R. See Fabriques de Prod. de Chim. Organique de Laire.
- Armendt, B. F., and Bailey, J. R., nitrogen compounds in petroleum distillates. VII. Reactions of the naphthenic base,  $\text{C}_{16}\text{H}_{28}\text{N}$ ; new naphthenic base,  $\text{C}_{13}\text{H}_{21}\text{N}$ , A., 1305.
- Armour, J. C. See Webster, D. R.
- Armstrong, D. E., and Richardson, D. H., Reimer-Tiemann reaction, A., 715.
- Armstrong, E. F., enzymes: a discovery and its consequences, A., 533. Alcohol through the ages, B., 379.
- Armstrong, G. See Butler, J. A. F.
- Armstrong, J. J., continuous filter, (P.), B., 288.
- Armstrong, J. J. V., acid-resisting metal [iron] alloys, (P.), B., 68.
- Armstrong, K. F., chemistry of chlorophyll, A., 1173.  
See also Conant, J. B.
- Armstrong, P. A. E., heat-, rust-, and acid-resisting ferrous alloy, (P.), B., 68. Reducing and converting metals [e.g., chromium] and making alloys, (P.), B., 311.
- Armstrong, P. B. See Amberson, W. R.
- Armstrong, W. D., modification of Willard-Winter method for fluorine determination, A., 582. Colorimetric determination of fluorine, A., 1132. Silicon tetrafluoride volatilisation, A., 1136.
- Armstrong Cork Co., and Perry, A. C., [patterned] linoleum, (P.), B., 116.  
See also Hartman, S. H., Pieper, E. J., and Smith, D. F.
- Arnal, V. See Rius, A.
- Arnaudet, A. See Binet, L.
- Arnd, T., determination of nitrate nitrogen in fertilisers by the copper-zinc dust method, B., 118.
- Arndt, F., and Martius, C., relations between acidity and enolisation, A., 146.  
and Scholz, H., preparation and storage of nitrosomethylcarbamide, A., 266. Acid chlorides and diazomethane; carbonyl and sulphonyl, A., 806.

- Arneson, A. N., and Morrin, K. C., blood and urinary amylase in pregnancy and its late toxemias, A., 86.
- Arnold, A., and Luck, J. M., arginine. III. Arginine content of vertebrate and invertebrate muscle, A., 411.
- Arnold, E., analysis of plated articles, B., 393.
- Arnold, E. F. See Du Pont de Nemours & Co., E. I.
- Arnold, G. D., dehydrating or drying, (P.), B., 368.
- Arnold, J. H., estimation of latent heats of vaporisation, A., 667.
- Arnold, P. T. D., Neal, W. M., and Becker, R. B., influence of arsenical dipping on yield of milk by dairy cows, A., 177.
- Arnold, R. H., and Frost, L. E., service requirements of insulating varnishes, B., 315.
- Arnold, W., order of the Blackman reaction in photosynthesis, A., 1341. Ultra-violet light and photosynthesis, A., 1341.
- See also Emerson, R.
- Arnold-Aljabjev, V. I., composition of ice from Gulf of Finland in connexion with its mechanical strength, A., 1028.
- Arnot, F. L., diffraction of electrons in mercury vapour. II, A., 658. Measurement of critical potentials with a screened grid valve, A., 1135.
- Arnot, J. M., flocculating or disintegrating machine [for fibrous materials], (P.), B., 344.
- Arnoux, M. See Blanchetière, A.
- Arnow, E. L. See Hemmingway, A.
- Arny, A. C., variations in the organic reserves in underground parts of five perennial weeds from late April to November, A., 328.
- Arny, F. P. See Greisheimer, E. M.
- Aron, C. P., influence of selective absorption of three-colour inks on character of reproduction, B., 525.
- Aron, M., activity of anterior pituitary gland in various animal species and in various ages by comparison of the hormone present in the organism with morphological development of the thyroid, A., 193. Is there a follicle-ripening hormone as well as a luteinising hormone in the anterior pituitary gland? A., 194. Distinction between the anterior pituitary hormone having an excitatory action on the thyroid gland, and the ovary-stimulating factor in extracts of the anterior lobe, A., 1086.
- Caulaert, C. van, and Stahl, J., equilibrium between anterior pituitary and thyroid hormones in the normal and pathological organism, A., 193.
- See also Caulaert, C. van.
- Aronovsky, S. I., and Gortner, R. A., cooking process. III. Cooking wood with sodium sulphate, B., 342.
- Arons, P., and Rijst, M. P. J. van der, cause of infections in cases of vitamin-A deficiency, A., 195.
- Aronsfrau, C. See Pinkus, A.
- Arragon, G., two acetyl derivatives of sorbose, A., 811.
- See also Aubel, E.
- Arrhenius, O., phosphate question. VI. Determination of phosphorus requirement [of soils] by chemical methods, B., 1071.
- Arrhenius, S. See Kuhn, H.
- Arroyo, R., utilisation of molasses by fermentation to higher alcohols, B., 122.
- Artsdel, W. B. van. See Richter, G. A.
- Artamonov, N. S., influence of admixtures of sodium sulphate to magnesium sulphate carriers on activity of platinum catalyst in the reaction  $2\text{SO}_2 + \text{O}_2 \rightarrow 2\text{SO}_3$ , B., 746.
- Arthur, J. M., artificial light and plant growth, B., 244.
- Arthus, A., and Jedrzejska, A., parathyroidectomy and vitamin-D; effect on blood-calcium, A., 196.
- Artom, C., rôle of phosphatides in fat metabolism. I. Parenteral administration of iodised fats, A., 1325.
- Artour, C., determination of lipin in tissue, A., 297.
- Artundo, A., and Aubel, E., oxidisability and rate of growth [of fungi], A., 982.
- Arutunian, A. C. See Veller, S. M.
- Arvey, F. von. See Verzár, F.
- Arveson, E. J. See Kobe, K. A.
- Arveson, M. H., and Standard Oil Co., lubricating compound, (P.), B., 538. and Standard Oil Co. of Indiana, preparation of lead mahogany soap lubricant, (P.), B., 538. Mill grease, (P.), B., 718.
- See also Sullivan, F. W., jun.
- Arzimović, L. A. See Alichanov, A. I.
- Asaba, T., fractional specificity of serum-albumin, A., 624. Isolation of antibodies from immunised serumglobulin, A., 1066.
- Asahina, Y., and Asano, J., 3:5-dihydroxy-p-toluic acid, A., 712. Lichen substances. XXIII. Salazic acid. II. XXVII. Transformation of salazic acid into a derivative of cetraric acid. XXIX. Salazic acid. III, A., 823, 1161.
- and Asano, J. [with Fuse, M., and Okami, K.], lichen substances. XXI. Salazic acid. I, A., 714.
- and Fuzikawa, F., identity of diffractaic acid with the dirhizonic acid of Hess, A., 69.
- and Hashimoto, A., lichen substances. XIX. Alecronic acid, a new component of pale-coloured *Alectoria* species, A., 713.
- and Hayashi, H., lichen substances. XXVI. Psoromic acid, A., 823.
- and Hirakata, T., lichen substances. XV. Divaricatic acid, A., 64.
- Kanaoka, Y., and Fuzikawa, F., lichen substances. XX. Collatolic acid, an alecronic acid methyl ether, A., 714.
- and Nonomura, S., lichen substances. XVI. Components of *Ramalina* species with particular reference to sekikaic acid, A., 159.
- and Tanase, Y., lichen substances. XXII. Cetraric acid, A., 714.
- and Tukamoto, T., lichen substances. XXIV. Methyl norbarbatate. XXXI. Components of certain *Usnea* species, particularly with respect to compounds of the salazic acid group, A., 823, 1161.
- and Yanagita, M., lichen substances. XVII. Squamatic acid. XVIII. iso-Squamatic acid, a new depside from *Cladonia Boryi*, Tuck. XXX. Cupraric acid, A., 159, 504, 1161.
- Yanagita, M., Hirakata, T., and Ida, M., lichen substances. XXVIII. Occurrence of stictic acid in various lichens, A., 1050.
- Yanagita, M., and Omaki, T., lichen substances. XXV. Stictic acid, A., 823.
- Asai, T. See Takahashi, Teizo.
- Asakawa, Y., measurement of vapour tension of gasoline and heavy oils, B., 901.
- Asaki, I., electric heating elements, B., 1064.
- Asakura, K., detoxicating hormone of the liver [yakriton]. XXXV. Effect of yakriton on milk secretion, A., 195. and Ohsako, H., peroxidase reaction. XLII. Arakawa's reaction and toxicity of human milk, A., 1068.
- Asana, R. D., photosynthesis, A., 1091.
- See also Dastur, R. H.
- Asano, J. See Asahina, Y.
- Asano, M., and Ohta, Z., constitution of caperic acid. I, A., 823.
- Asaoka, K. See Fujii, Mitsuzo.
- Asbury, C. T. See Bowers, E. F.
- Ascham, L., vitamin-A in the pimento pepper, A., 644.
- Aschan, O., santonone, A., 1166. Pectin as a source of lignin and humus, B., 584. and Schwalbe, A., oxonium salts; use in preparation of hydrogen sulphates of terpene and other alcohols, A., 256.
- Ascher, E. See Ruff, O.
- Ascherl, A., Gruber, W., and Wacker Ges. für Elektrochem. Ind., A., drawing of cellulose acetate threads, (P.), B., 825.
- Aschheim, S., and Hohlweg, W., occurrence of oestrogenic substances in bitumen, A., 870.
- Aschkinazi, J. B., preparation of 3:4-dihydroxytoluene from 3-amino-p-cresol by diazotisation, A., 1158.
- Aschkinazi, M. S. See Finkelstein, V. S.
- Aschner, B., and Jaso-Roldan, L., clinical significance of pituitrin hyperglycemia, A., 193.
- Aschoff, L., formation of bile pigment and jaundice, A., 303.
- Aseev, N. P., Beloglazov, K. F., and Greiver, N. S., hydrometallurgical acid treatment of carbonate ores, B., 104. Ammonia leaching of cupiferous sandstones, B., 104. Hydrometallurgical treatment of Perm copper sandstones, B., 309.
- and Tzaregordtzev, I. D., investigation and treatment of Ridder zinc-containing lead slag, B., 391.
- See also Selivanov, B. P.
- Ash, E. J. See Saeger, C. M., jun.
- Ashcroft, E. A., sulphate roasting of copper ores and economic recovery of electrolytic copper from chloride solutions, B., 750.
- Asher, D., isolation of thymocrescin, A., 319.
- Asher, D. W., and Jones, James Hazlitt, effect of irradiated ergosterol after removal of parathyroid glands from rats, A., 542.
- Asher, T. See Behrens, M.
- Asheshov, I., collodion membrane filters. I and II, A., 690.
- Ashford, C. A., glycolytic mechanisms of brain, A., 856.
- Ashikaga, M. See Nakazawa, R.
- Ashington Coal Co., Ltd., Tait, J., and Drimmond, W. J., apparatus in which pulverulent material is conveyed in suspension in a gas stream, (P.), B., 177.
- Ashley, A. See Andrus, W. De W.
- Ashley, F. E., vegetative responses of the peach to applications of sodium nitrate, A., 198.
- Ashley, J. N., Browning, C. H., Cohen, J. B., and Gulbransen, R., antiseptic and trypanocidal properties of some anil and styryl derivatives of 4-amino-quinoline, A., 984.



- Ashley, M. F., and Jenkins, F. A., evidence against the existence of a chlorine isotope of mass 39, A., 204. Possibility of the existence of the chlorine isotope  $\text{Cl}^{39}$ , A., 1223.
- Ashley, W. C., and Shriner, R. L., action of sodium ethoxide on ethyl *l*- $\alpha$ -benzenesulphonylbutyrate, A., 53.
- Ashmore, J. E., and Wheeler, R. V., composition of coal; action of solvents, B., 1040.
- Ashton, F. W., Houston, D. F., and Saylor, C. P., optical properties, densities, and solubilities of the normal formates of some metals of group II of the periodic system, A., 1112.
- Ashton, M. R. See Hutchinson, A. H.
- Ashworth, D. R. See Chattaway, F. D.
- Ashworth, U. S., Brody, S., and Hogan, A. G., growth and development. XX. Relation between basal metabolism and body-weight in the growing rat, A., 854. See also Phillips, F. W.
- Asinger, F., and Lock, G., influence of substitution on velocity of hydrolysis of benzylidene chloride, A., 1124. 3:5-Dichlorobenzaldehyde, A., 1162.
- Askenasy, P., concrete, (P.), B., 789.
- Askénova, M. See Kronmann, E.
- Askew, F. A., and Parkes, A. S., thermostability of prolan, A., 1338.
- Askew, H. O., soil contamination of pasture samples; detection and approximate determination, with special reference to effect on iron content of pastures, B., 164. Influence of season and of ammonium sulphate on chemical composition of perennial rye grass and of white clover, B., 1073.
- Askinasi, D. L., nature of soil acidity, B., 882.
- Asmundson, V. S., and Biely, J., fish-meal supplements for chicks. I. Comparative rate of growth-to-eight-weeks on rations supplemented with pilchard, halibut, dried skim milk, or with salmon meal and skim milk, B., 283.
- Asmussen, R. W., magnetochemical study of constitution of peroxyamine-sulphonic acid, A., 767.
- and Madsen, E. R., salicylberyllates and beryllium salicylate, A., 1292. See also Andersen, E. B.
- Aso, K., soil reaction and behaviour of barley and rice, B., 84.
- Migita, M., and Tomoda, M., production of phthalic acid by *Azotobacter*, A., 96.
- and Yoshida, R., promoting decomposition of organic matter in soils by phosphatic fertilisers, B., 82.
- Asociacion de Productores de Yodo de Chili. See Schlötter, M.
- Aspelund, H., substituted dialuric and hydurilic acids. I., A., 616. Action of triphenylmethyl perchlorate on substituted barbituric acids, A., 723.
- Asplund, A. J. A., defibrating wood, etc., (P.), B., 664.
- Asprey, G. F., antagonism. I. Effect of presence of salts of univalent, bivalent, and tervalent cations on the intake of calcium and ammonium ions by potato tuber tissue. II. Effect of previous immersion of potato tuber tissue in solutions of univalent, bivalent, and tervalent cations on subsequent absorption of ammonium ion, A., 436, 649.
- Assarsson, G., calcium aluminates. III. Crystallisation of calcium aluminate solutions at 90°, A., 1119. Hydration of alumina cement, B., 467.
- Asselin, L. See Simonnet, H.
- Asser, E. See Ruth A.-G., G.
- Assmann, C., determination of air in high-percentage acetylene, B., 900.
- Associated Electrical Industries, Ltd. See Bailey, R. W., and Burch, C. R.
- Assoc. London Flour Millers, Ltd. See Bryan, N. T.
- Assoc. Oil Co. See Lazar, A., and Stark, D. D.
- Association of American Soap & Glycerine Producers, Inc. See Hoover, K. H., and Segur, J. B.
- Astasheva, A. See Saslavski, I. I.
- Astbury, W. T., problems in the X-ray analysis of structure of animal hairs and other protein fibres, A., 216. X-Ray interpretation of fibre structure, B., 618.
- and Atkin, W. R., X-ray interpretation of molecular structure of gelatin, A., 1108.
- Astin, S., Newman, A. C. C., and Riley, H. L., selenium dioxide, a new oxidising agent. III. Its reaction with alcohols and esters, A., 591.
- and Riley, H. L., determination of copper by the salicylaldehyde method, A., 478.
- Aston, B. C., pampas grass and toetoe; experience with pampas as winter fodder, B., 249.
- Aston, F. W., new isotopes of mercury, A., 4. Physical at. wts., A., 203. Isotopic constitution and at. wt. of lead from different sources, A., 762. Isotopes, A., 882.
- Aston, J., Beale, A. H., and Byers Co., A. M., wrought iron, (P.), B., 833.
- Aston, J. G. See Lasselle, P. A.
- Astruc, H., and Castel, A., determination of tannin in wines, B., 167.
- Atanasiu, I. A., and Velculescu, A. J., potentiometric determination of sulphates by indirect titration with benzidine, A., 363. Potentiometric determinations on nickel and cobalt ferrocyanides, A., 924.
- Atchley, D. W., Loeb, R. F., Richards, D. W., jun., Benedict, E. M., and Driscoll, M. E., diabetic acidosis; electrolyte balances following withdrawal and re-establishment of insulin therapy, A., 971.
- See also Loeb, R. F.
- Ateliers Généraux de Construction Société Anonyme, amorphous carbon, (P.), B., 51.
- Ateliers J. Hanrez Société Anonyme, and Modave, A., apparatus for removing dust from gases and purifying same by washing, (P.), B., 130.
- Aten, A. H. W., electro-osmotic purification of water, B., 606.
- See also Ornstein, L. S.
- Athanasiu, G., spectral sensitivity of [photo-electric] cells with copper electrodes covered with cuprous oxide, A., 8. Photo-electric effects of crystals of argentite, proustite, and pyrargyrite, A., 887.
- Atoll Manufacturing Co. See Mitchell, R. B.
- Athy, L. C. See Brit. Thomson-Houston Co.
- Atkeson, F. W. See Woods, E.
- Atkin, W. R., and Thompson, F. C., acidity of vegetable-tanned leathers. II., B., 160. Deterioration of vegetable-tanned leather, B., 838.
- See also Astbury, W. T., and McCandlish, D.
- Atkins, D. C., apparatus for removing gases from petroleum, (P.), B., 378.
- Atkins, W. R. G., rapid determination of copper content of sea-water, A., 1025.
- and Poole, H. H., photo-electric measurement of penetration of light of various wave-lengths into the sea and physiological bearing of the results, A., 757. Use of cuprous oxide and other rectifier photo-cells in submarine photometry, A., 1026.
- See also Poole, H. H.
- Atkinson, E. R. See Huntress, E. H.
- Atkinson, R. H., and Raper, A. R., electro-deposition of palladium, B., 710.
- Atlantic Refining Co., and Kurtz, S. S., jun., refining of mineral oils, (P.), B., 214.
- See also Birkhimer, E. R., Ferris, S. W., Funsten, S. B., Henderson, L. M., Hill, J. B., Hoel, A. B., Malisoff, W. M., Roulton, J. A., Schott, J. E., and Smith, L. B.
- Atlas Ago Chemische Fabrik Akt.-Ges. See Scholz, V.
- Atlas Powder Co. See Bashford, R. I., Hill, Roy L., and Stratton, R. H.
- Atmospheric Nitrogen Corporation. See Porter, F., and Trotter, A. H.
- Atsuki, K., and Fujii, Mitsuo, purification of sodium cellulose xanthate, B., 343.
- and Ishiwara, M., minute structure of cotton fibre, A., 892. Size of the micelle and colloidal particle of cellulose nitrate, A., 902. Structure of cellulose gels. V. Structure of natural cellulose fibre as revealed by X-ray analysis. VI. Structure of viscose rayon and cellophane as analysed by X-rays. VII. X-Ray study of cellulose nitrate gel, A., 1235, 1243. [Viscosity of cellulose esters and acetylcellulose], B., 186. Esterification of cellulose and cellulose esters. IV. Selective absorption of the component of mixed acid by cellulose nitrate, B., 263. State of the cellulose molecule in solution, B., 780.
- and Kagawa, I., copper number of cellulose, B., 501. Wet-spinning of cellulose acetate silk, B., 742. Determination of acetic acid in cellulose acetate, B., 742.
- Sobue, H., and Kitajima, K., structure of cellulose gels. IV. Mechanism of sorption of vapours by cellulose gels, A., 350.
- Atta, E. A. van. See White, H. L.
- Attkiss, P., anti-freezing solution, (P.), B., 896.
- Atwell, H. V., and Standard Oil Co., distilling petroleum residuum, (P.), B., 139.
- See also Standard Oil Co.
- Atwood, F. C., casein solution, (P.), B., 845. Relationship between radiant energy and paint, B., 976.
- Aub, J. C. See Tibbets, D. M.
- Aubel, Edmond van, effect of temperature on viscosity of liquids, A., 453.
- Aubel, Eugene, Gayet, R., and Khouvine, (Mme.) Y., disappearance of lactic acid, arising from muscular activity, in the dehepatized animal, A., 87.
- Khouvine, (Mme.) Y., and Arragon, G., transformation of pyruvic into lactic acid in liver, A., 1330.
- See also Artundo, A., and Binet, L.
- Aubert, C. See Guichard, F.
- Aubert, H. See Litarczek, G.

- Aubertin, E., and Trinquier, E., effect of insulin on blood-sugar after removal of kidneys or ureters, A., 1035. Hypoglycæmic effect of insulin in dogs under chloralose, A., 1035. Hypoglycæmic effect of insulin injected into the portal vein of the dog, A., 1209.
- Aubertot, V. See Mougeot, A.
- Aubouy, P., and Mercocrol, wines of the Gard and the Ardèche, B., 809.
- Aubry, M., nitroisobutanetriol [ $\beta$ -nitro- $\beta$ -hydroxymethylpropane- $\alpha$ -diol] trinitrate, A., 592. Preparation of  $\alpha$ -butylene glycol dinitrate, A., 592. Preparation of the nitric ester of  $\beta$ -hydroxyethylamine nitrate, A., 597.
- Auby, A. See Hadnagy, Z.
- Auchinachie, D. W., and Emslie, A. R. G., effect of diet on plasma-phosphatase of sheep, A., 733.
- Auchincloss, R. See Nelson, J. M.
- Audibert, E., and Raineau, A., physical state of solid catalysts, A., 1126.
- Audrieth, L. F., solvo-systems of chemical compounds, A., 903.
- and Birr, E. J., anomalous electrolytes. I. Electrical conductivity of solutions of iodine and cyanogen iodide in pyridine [at 25°], A., 354.
- Nespital, W., and Ulich, H., electric moments of hydrazine and its derivatives, A., 339.
- See also Meints, R. E., and Walden, P.
- Audubert, R., distinction between electronic and photochemical effects in photo-voltaic elements, A., 338. Debye-Hückel theory and the electrokinetic potential, A., 461. Mechanism of action of light on electrodes photosensitised with copper salts, A., 662. Electrochemical properties of photosensitive electrodes in copper salts, A., 682. Electrochemistry of photosensitive electrodes with copper salts, A., 909.
- and Doormaai, van, emission of radiation in chemical reactions, A., 764.
- Auer, H., determination of paramagnetic ionic moments in solutions, A., 22.
- Auerbach, M., analysis [of tannin extracts, oils, etc.] by fluorescence with the "Callophane" apparatus, B., 117. Falsification of train oils, B., 197.
- Auerbach, R., and Steinhorst, W., [cadmium-zinc alloy] coating material for metal articles, (P.), B., 312.
- Auerbacher, L. J., prevention and cure of rickets through irradiated milk, A., 304.
- Aufhäuser, specific differences in combustion of brown coal and bituminous coal, B., 209.
- Auger, P., diffusion of neutrons: inelastic collisions with nuclei, A., 205.
- and Monod-Herzen, G., emission of neutrons by aluminium under action of  $\alpha$ -particles, A., 335. Collisions between neutrons and protons, A., 551.
- Augier, J. See Colin, H.
- Augstein, W., 2-amino-1-hydroxyhydri-dene, an ephedrine-like substance, A., 421.
- Auguste, C., effect of water ingestion on ratio of albumin to globulin in blood-serum, A., 293. Effect of ingestion of pure water and mineral diuretic water on blood-serum-protein, A., 733.
- Augusti, S., characteristic reaction of magnesium and iodine, A., 1024.
- Augustin, J., sodium cholate as a soap improver, B., 75.
- Auhagen, E., purification of cocarboxylase; its occurrence in the animal organism, A., 427. Transformation of methylglyoxal when added to blood and muscle, A., 1203.
- and Grzycki, S., effect of fluoride on the action of phosphatase, A., 1203.
- and Neuberg, C., conversion of alcoholic fermentation of sugar by yeast into a lactic acid fermentation, A., 1204.
- Aull, L. E., and Dean, R. W., efficiency of lubricating and tar oil emulsions against scurfy scale (*Chionaspis furfura*, Fitch), B., 1074.
- Ault, R. G., Baird, D. K., Carrington, H. C., Haworth, W. N., Herbert, R., Hirst, E. L., Percival, E. G. V., Smith, Fred, and Stacey, M., synthesis of d- and l-ascorbic acid and of analogous substances, A., 1275.
- Aumaréchal, J., and Robrieux, G., india-rubber articles [from latex], (P.), B., 239.
- Auméras, M., and Marcon, J., conductometric and electrometric titration of mixtures of sodium hydroxide and carbonate, A., 363.
- and Tamisier, A., cupric and cadmium amines, A., 474.
- Aunis, G. See Muraour, H.
- Auricchio, G.,  $\beta$ -hydroxy- $\alpha$ -hexamethyl di-iodoaminoisopropyl iodobismuthate, A., 152. Organic bromine compounds of therapeutic value, and hexamethylenetetramine hydrobromide, A., 701. Gluconic acid and gluconates, and their variable optical rotations, B., 764.
- Aurora Sign Co. See Gross, J. E.
- Austen-Walton, J. I. See United Water Softeners, Ltd.
- Austin, James B., heat capacity of iron, A., 15. Entropy, heat content, and free energy of iron, A., 118.
- and Pierce, R. H. H., jun., linear thermal expansion of a single crystal of sodium nitrate, A., 342. Constitution and thermal expansion of silica coke-oven brick after service, B., 267. Thermal expansion of heat-resisting iron alloys; iron-chromium and iron-chromium-nickel, B., 709.
- Austin, John B., high-speed welding electrode, (P.), B., 714.
- Austin, J. H. See Drabkin, D. L., and Sunderman, F. W.
- Austin, M. M., and Fansteel Products Co., pressure-welding electrode, (P.), B., 634.
- Austin, P. R., organic lead compounds. V. Asymmetric derivatives, A., 963.
- See also Evans, H. M.
- Austin, R. W., fire-extinguisher charge, (P.), B., 415.
- Austin, W. C., and Humoller, F. L., preparation of L-arabinose and L-ribose by oxidation of L-arabinal with perbenzoic acid, A., 147. Preparation of crystalline  $\beta$ -l-allose, a new aldohexose, from L-ribose by the cyanohydrin reaction, A., 699.
- Australian Chemical Institute, authorised tentative methods of sampling and analysis for oils, fats, and waxes, B., 555.
- Auten, J. T., porosity and water absorption of forest soils, B., 882.
- Autogas Corporation. See Wetherbee, A. U.
- Auto-Klean Strainers, Ltd., and Beldam, W. R., filtering or straining apparatus, (P.), B., 945.
- Automotive Process Corporation. See John, R.
- Auwers, K. von, spectrochemistry and configuration of azoxybenzenes and stilbenes, A., 59. [Supposed acetone-anil], A., 165. Significance of specific exaltation of molecular refraction and molecular dispersion, A., 448. Spectrochemistry of pyridone and pyridine derivatives, A., 556. Spectrochemistry of keto-enols and question of the existence of dienols of the allene type, A., 810. Constitution of o-hydroxyazo-compounds, A., 1156.
- and Müller, H., hydroxylamine derivatives of ketones. I. Dibenzoyl-methane and phenyl styryl derivatives. II. Derivatives of benzylidenacetone, ethylidenacetophenone, and benzoylacetone. III. iso-Oxazolines and isooxazoles, A., 611, 725.
- and Risse, E., formation of hydrindones from unsaturated ketones, A., 725.
- and Ungemach, O., formation and degradation of pyrazoline derivatives, A., 1170. Addition of diazomethane to acetylenecarboxylic esters, A., 1171.
- and Wolter, E., spectrochemistry of compounds of the sterol group, A., 9.
- and Wunderling, H., products of the oxidation of benzophenoneoxime, A., 505.
- Auwers, O. von, and Kühlewein, H., stereomagnetism. I. Significance of atomic interaction for magnetism. II. Problem of perminvar, A., 664.
- Avakian, A. H., precipitation of silica from solution in alkali brines, (P.), B., 828.
- Avdonin, N. S., mobility of nutrients in soil in relation to its cultural condition, B., 562. Imbibition of nutrients by plants and return of these by plants to the soil, B., 982.
- Avecilla, C. L. S., and Puget, L. M., distillation of Spanish lignites; sulphur balance, B., 818.
- Avent, A. G., hydrogenated cacao butter, B., 836.
- Averdieck, R. See Esser, H.
- Averkief, N. D., and Udovenko, N. V., alkali silicates for briquetting iron ore fines, B., 230.
- Avery, H. B. See Manchester Oxide Co.
- Avetisyan, K. K., composition of copper matte, B., 430.
- Avidon, M. A. See Nikitin, N. I.
- Avrard, P. See Chauvenet, E.
- Avseevitch, G. P. See Kriukov, P. A.
- Awazu, S. See Watanabe, T.
- Awbery, J. H., and Griffiths, E., heats of combustion of carbon monoxide in oxygen and of nitrous oxide in carbon monoxide at constant pressure, A., 905. Thermal properties of meat, B., 937.
- Awe, W. See Feist, K.
- Axberg, G., and Holmberg, B., fats and thiolacetic acid, A., 1144.
- Armacher, F., influence of dyes on functions of cells and organs. I. Vital dyes and surviving organs. II. Oxidative gaseous metabolism of surviving tissues. III. Fermentation by yeast cells and press juices in presence of organic dyes. IV. Absorption by living cells (yeast), A., 531, 751, 982.
- Ayling, E. E. See Hinkel, L. E.
- Aynsley, E. E., Pearson, T. G., and Robinson, P. L., sulphur-hydrogen reaction, A., 469. Catalysis of the hydrogen-sulphur reaction by minute traces of oxygen, A., 911.

Ayres, *E. E.* See Gulf Refining Co.  
 Ayres, *G. H.* See Robinson, *F. J.*  
 Ayyar, *N. K.*, influence of urinary reaction on excretion of lime and magnesia, A., 300.  
 Azérad. See Baudouin.  
 Azim, *M. A.*, and Bhatnagar, *S. S.*, influence of temperature on diamagnetism of liquids, A., 1104.  
 Azo Akt.-Ges., anti-slip rubber material, (P.), B., 400.  
 Azzolini, *B.*, liquid extract of *Equisetum*, B., 892.

## B.

- Baader, *A.*, measurement of small gas velocities, A., 586.  
 Baba, *Tôji*, decomposition of fat infused directly into the animal body. III. Formation of sugar and ketonic substances from infused fat, A., 974.  
 Baba, *Toshitomo*. See Ishikawa, *T.*  
 Babaeva, *A. V.* See Rakovski, *M. A.*  
 Babajan, *A.* See Gambarjan, *S.*  
 Babcock, *H. D.*, and Birge, *R. T.*, precision determination of the mass ratio of  $O^{18}$  and  $O^{16}$ , A., 203.  
 and Hoge, *W. P.*, absorption bands of atmospheric oxygen, A., 199.  
 Babcock, *L. W.*, and Hercules Powder Co., fermentable sugars and alcohol from wood, (P.), B., 280.  
 Babcock, *S. H.*, jun., and Fuson, *R. C.*, cleavage of carbonyl compounds by alkalis. IX. Phenacylpyridinium salts, A., 956.  
 Nakamura, *F. I.*, and Fuson, *R. C.*, cleavage of phenacylpyridinium halides by alkali, A., 74.  
 See also Ingersoll, *A. W.*  
 Babcock & Wilcox Co. See Jacobus, *D. S.*, Lucke, *C. E.*, and Trainer, *J. E.*  
 Babcock & Wilcox, Ltd., Bailey, *E. G.*, Cassidy, *P. R.*, and Hardgrove, *R. M.*, pulverising mills, (P.), B., 847.  
 Babers, *F. H.* See Goebel, *W. F.*  
 Babichev, *B. I.* See Kutuirin, *D. V.*  
 Babinet, *M. L. A.* See Nitricastiron Co.  
 Babitsch, *S.*, lead plaster, B., 939.  
 Babkin, *M. P.*, aqueous ammonia as a reagent for chlorine and bromine in the presence of iodine, A., 797. Volumetric determination of the hardness of water, B., 1038.  
 Babet, *J.*, and Bader, *H.*, magnesium and cancer in Indo-China, A., 414.  
 Baborovský, *J.*, and Viktorin, *O.*, influence of parchment membrane on the transport numbers of cations in solutions of sodium and barium chlorides, A., 776.  
 and Wagner, *A.*, electrolytic transport of water in sodium iodide solutions; rôle of parchment paper membrane in electrolysis of aqueous solutions of alkali and alkaline-earth halides, A., 230.  
 Baboshin, *A. L.*, Smirnov, *A. V.*, Tulyakov, *A. P.*, and Normark, *A. I.*, nature of flakes (white spots of minute cracks) in turbine discs, B., 23.  
 Baccaredda, *M.*, structure of spherocobaltite, A., 141.  
 See also Natta, *G.*  
 Baccus, *T. W.*, and Hercules Powder Co., treating [cooking] fibrous material, (P.), B., 301.  
 Bach, *A.*, mechanism of catalysis of autoxidation processes by iron, A., 155.  
 Bach, *D.*, determination of ammonia by steam distillation in a vacuum, A., 921.  
 Disinfectants. I. and II. Monobasic fatty acids, B., 990.  
 Bach, *F.*, and Bonhoeffer, *K. F.*, photographic elementary process for lithium hydride, A., 107.  
 Bach, *H.*, determination of carbon in water effluents and in settled sludge, B., 286.  
 Bach, *I.*, and Korpásky, *B.*, catalase and glutathione content of red blood corpuscles in experimental anemia, A., 1321.  
 Bach, *N.*, dependence of the stability of carbon suspensions on the gas charge and composition of the solution. II., A., 902.  
 and Levitin, *I.*, mechanism of activation of carbon, A., 794.  
 See also Pilojan, *A.*  
 Bach, *W. J.* See Friend, *W. H.*  
 Bacharach, *A. L.*, vitamin content of natural products, A., 323. Vitamin-C and ascorbic acid, A., 433. Vitamin-A-free basal diets. I., A., 644.  
 Allehorne, *E.*, Hazley, *V.*, and Stevenson, *S. G.*, photographic recording of line-tests for vitamin-D, A., 326.  
 and Smith, *E. L.*, vitamin-A-free basal diets. II., A., 644.  
 Smith, *E. L.*, and Stevenson, *S. G.*, properties of ergosterol and calciferol, A., 542.  
 Bacharach, *G.*, Haut, *A. H.*, and Caroline, (*Miss*) *L.*, effect of the medium "metallic nitrate-acetic anhydride" on orientation of the nitro-group [introduced into] aromatic compounds, A., 711.  
 Bachelder, *W. H.* See Wood, *W. E.*  
 Bacher, *R. F.*, Zeeman effect of the hyperfine structure in thallium II and III, A., 201. Interaction of configurations:  $sd-p^2$ , A., 331. Magnetic moment of the nitrogen nucleus, A., 767.  
 and Condon, *E. U.*, spin of the neutron, A., 1224.  
 and Wulff, *J.*,  $g$ -value of the normal state of Bi I, A., 1220.  
 See also Campbell, *J. S.*, Goudsmit, *S.*, and Meggers, *W. F.*  
 Bachimont, *J.* See Pien, *J.*  
 Bachman, *G. B.*, dehalogenation of aliphatic bromo-acids; bromo- and dibromo-olefins, A., 1275.  
 Bachmann, *W.*, and Pinnow, *P.*, highly concentrated fluoride sols, A., 348.  
 Bachmann, *W. E.*, photochemical reduction of ketones to hydrols, A., 276. Action of sodium alkoxide and of sodium amalgam on aromatic pinacols, A., 277. Mechanism of reduction by sodium amalgam and alcohol. I. Reduction of aromatic ketones to hydrols, A., 391. Reaction of aromatic ketones with sodium. I. Structure of the so-called metal ketyls. II. Reactions of sodium pinacols, A., 505, 952. Relative stability of penta-arylethanes. I. Preparation of penta-arylethanes. II. Reactions of penta-arylethanes, A., 703, 943. Retropinacolin rearrangement. I., A., 1159.  
 and Cockerill, *R. F.*, reactions of magnesium triphenylmethyl bromide. II., A., 963.  
 and Sternberger, *H. R.*, pinacol-pinacolin rearrangement. IV. Rearrangement of pinacols containing the diphenylene group, A., 1163.  
 Bachmetev, *E. F.*, Vozdvishenski, *M. D.*, Goubkin, *S. I.*, Kosolapov, *G. F.*, and Rovinski, *B. M.*, nature of structural changes during deformation of metal at higher temperatures, B., 791.  
 Bachoukova-Brnn, *R.* See Gutzeit, *G.*  
 Bachstoz, *M.*, hydro-oroic acid, A., 722.  
 and Cavallini, *G.*, hydro-oroic acid, A., 616.  
 Backeberg, *O. G.*, condensation of anthranilic acid with 4-chloroquinoline and with 2-chlorolepidine, A., 616. Action of phosphoryl chloride on the toluene- $p$ -sulphonyl derivative of  $\beta$ -anilinopropionic acid, A., 836. 2-Anilinoepidide derivatives, A., 1057.  
 Backer, *H. J.*, compact molecules, A., 211.  
 and Dijkstra, *N. D.*, tetrasulphones derived from carbontetramethanethiol, A., 48. Sulphoxides and other derivatives of tetrathiomethylmethane, A., 932.  
 and Keuning, *K. J.*, symmetrical dithio-spiroheptane, A., 834.  
 and Kramer, *J.*, "radial" tetrathio-orthostannic esters, A., 1274.  
 and Mulder, *H.*, acyl derivatives of aminomethanesulphonic acids, A., 702.  
 and Stedehouder, *P. L.*, reaction of mercaptans with carbon tetrachloride, A., 696. Aliphatic esters of tetrathio-orthocarbonic acid, A., 1274.  
 and Stienstra, *F.*, "radial" tetrathio-orthosilicic esters. I. and II., A., 144, 1274.  
 Terpstra, *P.*, and Dijkstra, *N. D.*, thioethers of pentaerythritol. II., A., 43.  
 Backé, *M.*, action of phosphoryl chloride on aldehydes, A., 376, 1050.  
 Backhurst, *I.*, magnitude of the  $L$ -absorption discontinuities, A., 993.  
 Backlund, *N. O.*, dewaxing and acid-refining mineral oils, B., 292.  
 Backström, *H. J.*, light filter for the middle ultra-violet, A., 552.  
 Backurs, *H. S.* See Swift, *E. H.*  
 Bacon, *R. F.*, recovery of sulphur from roaster gases, (P.), B., 189. Recovery of sulphur [from pyrites], (P.), B., 189, 626. Smelting sulphide ores to recover elemental sulphur therefrom, (P.), B., 712.  
 and Bencowitz, *I.*, recovery of sulphur [from pyrites], (P.), B., 548.  
 and Judson, *W.*, roasting pyrites fines, (P.), B., 793.  
 Bacon, *W. E.* See Buskirk, *H. H.*  
 Baer, *Z. M.*, hyperglycemia in the cat following stimulation of the peripheral ends of sympathetic nerves, A., 859. Physiology of the autonomous nervous system. III. Comparison of sympathin and adrenaline, A., 1336.  
 and Henri, *V.*, spectrographic proof of the formation of substances by excitation of the cardiac nerves, A., 184.  
 Badami, *J. S.*, hyperfine structure in antimony spark spectrum and nuclear moment of antimony isotopes, A., 2. Hyperfine structure in antimony arc spectrum, Sb I, A., 2. Under-water spark spectrum of cerium, A., 1096.  
 and Rao, *K. R.*, spectrum of selenium, II. See III, A., 655.  
 See also Rao, *K. R.*  
 Baddeley, *G.*, and Bennett, *G. M.*, monothioethyleno glycol. IV. Aryl  $\beta$ -hydroxy- and  $\beta$ -chloroethyl sulphides, A., 268. Influence of sulphur atom on reactivity of adjacent atoms or groups. VI. Aromatic side-chain and nuclear reactivity, A., 499.

- Badenoch, A. G., and Byron, F. E., calcium content of blood-serum in leprosy, A., 972.
- Bader, G. See Lemberg, R.
- Bader, H. See Babelt, J.
- Badertscher, A. E., rotenone in fly sprays; raising the quality of pyrethrum fly sprays by addition of a constant amount of rotenone, B., 894.
- Badertscher, D. E. See Whitmore, F. C.
- Badger, A. E., effect of various gaseous atmospheres on vitrification of ceramic bodies, B., 268.
- See also Parmelee, C. W.
- Badger, C. J., and Snider, H. J., composition of spring growth of sweet clover as influenced by previous autumn treatment, B., 517.
- Badger, R. M., and Yost, D. M., infra-red band system of iodine bromide, A., 208.
- See also McMorris, J.
- Badger & Sons Co., E. B. See Hall, W. T., Leslie, E. H., and Lunt, G. P.
- Badoche, M., coloured hydrocarbons; blue hydrocarbon and related colourless hydrocarbons, A., 1154.
- Badollet, M. S. See Cummins, A. B.
- Bäcker, E. G., relation between electrical conductivity of glass and the strain, A., 1000.
- Bäggli, E., and Burger, E., alloys of beryllium and aluminium, (P.), B., 312.
- Baens, L. See Yenke, F. M.
- Baensch, W., and Schering-Kahlbaum A.-G., packing for stuffing boxes and covers or lids of apparatus and machines subjected to a high gas pressure, (P.), B., 770.
- Baer, E. See Fischer, H. O. L.
- Bær, J. G. See Friedheim, E. A. H.
- Bär, R., existence of a continuous Raman effect in liquids, A., 113. Raman effect of glycerol, A., 553.
- and Meyer, E., diffraction of light by ultra-sound waves, A., 667.
- Bärenarten, E. V. See Laschkarev, V. E.
- Bärlund, H. See Collander, R.
- Baerts, F., detection and determination of reducing sugars in commercial analysis of raw [beet] sugars, B., 728.
- Determination of reducing sugars in raw sugar, B., 1029.
- and Binard, G., new method for determining traces of reducing sugars, B., 887.
- Baessler, E. See Skita, A.
- Baetge, H. H. See Schucht, F.
- Baetsle, R., Abeele, H. van den, and De Bruyker, C., presence of sulphur dioxide in Boulogne sausage, B., 248.
- Bätz, B., action of frost on solution of phosphate and potassium [in soils] as shown by Neubauer tests, B., 562.
- Bagdassarian, C. S. See Rabinovitch, A. J.
- Bagg, D. G., construction and proof of nomogram for reduction of gas volumes to standard temperature and pressure, B., 1039.
- Baggaley, F. H., electrically-conducting coatings, (P.), B., 436.
- Baggesgaard-Rasmussen, H., and Reimers, F., acid-base titrations in alcohol-water mixtures. I. Relative  $pH$  values for some buffer solutions in alcohol-water mixtures, A., 1015. Determination of morphine in admixture with other opium alkaloids, B., 811.
- Bagwill, W. L., [oil]-cracking still and process, (P.), B., 539.
- Bahlke, W. H., and Standard Oil Co., distillation of hydrocarbon oils, (P.), B., 53.
- Bahn, A. See Abderhalden, E.
- Bahr, H. A., and Jessen, V., fission of carbon monoxide on iron oxide and iron, A., 1129.
- Bahr, T., formation of alkali-soluble substances in the carbon monoxide reaction on iron, A., 362. Oxidation of semi-coke with nitric acid, nitric acid vapour, and metallic oxides, B., 178.
- and Patrick, A. J., catalytic reduction of tar phenols to aromatic hydrocarbons. I and II, B., 532, 578.
- Baiardo, N., and Lucchetti, E., Sardinian fermented milk, B., 1077.
- Bailey, B. L., and Ridgway, R. R., determination of maximum current-carrying capacity of furnace electrodes, B., 752.
- See also Ridgway, R. R.
- Bailey, C. F. See Conant, J. B.
- Bailey, C. H., and Gen. Mills, Inc., fermentation cabinet, (P.), B., 442.
- See also Mangels, C. E., Markley, M. C., Read, J. W., Sherwood, R. C., and Skovholt, O.
- Bailey, C. R., and Cassie, A. B. D., infra-red absorption spectrum of nitrogen dioxide, A., 336. Infra-red region of the spectrum. VIII. Application of the grating spectrometer to certain bands in the spectra of triatomic molecules (sulphur dioxide and carbon disulphide). IX. Absorption spectrum of chlorine monoxide, A., 764, 1228. Form and vibrational frequencies of the nitrogen dioxide molecule, A., 766. Molecular configuration of  $N_2O$ , A., 1105.
- See also Cassie, A. B. D.
- Bailey, E. G. See Babcock & Wilcox, Ltd.
- Bailey, E. M. See Fisher, H. J.
- Bailey, F. W. See Swamy, A. Y.
- Bailey, G. C., and Nat. Aniline & Chem. Co., cyanogen chloride and substituted guanidines, (P.), B., 704.
- Bailey, G. H., and Short, M. S., chemical and immunological properties of pneumococci and other heterophile antigens, A., 1084.
- Bailey, H. S., ore-oxidising muffled-retort furnace, (P.), B., 711.
- Bailey, J. R., loading combustion tube in carbon and hydrogen determination on liquids, A., 731.
- See also Arndt, B. F., Biggs, B. S., Lake, G. R., and Perrin, T. S.
- Bailey, K., and Norris, F. W., nature and composition of the mucilage of seed of white mustard (*Brassica alba*), A., 104.
- Bailey, K. C., action of ammonia on ethyl malonate and ethyl malonamate, A., 697.
- See also Richardson, T. N.
- Bailey, M. I. See Thomas, A. W.
- Bailey, O. See Woodroffe, D.
- Bailey, R. W., and Assoc. Electrical Industries, metal [e.g., steel] castings, (P.), B., 67.
- Bailey, V. A., and Rudd, J. B., behaviour of electrons in nitrous oxide, A., 109.
- Bailey, W. M., structural and metabolic after-effects of soaking seeds of *Phaseolus*, B., 839.
- Baily, T. F., electric furnace [for melting and carburising metals and for reduction of ores], (P.), B., 636.
- Baimakov, Y. V., and Popov, R. B., anodic solution of copper-tin alloys, B., 1013.
- Bain, E. C., rate of transformations in solid steel, B., 790.
- Bainbridge, K. T., comparison of the masses of He and  $H^+$  on a mass-spectrograph, A., 203. Masses of  $Ne^{20}$  and  $B^{11}$ ; mass of  $Ne^{22}$  and disintegration of  $F^{19}$ , A., 442. Masses of atoms and structure of atomic nuclei, A., 680. [Isotopic] constitution of tellurium, A., 1099. Isotopic constitution of zinc, A., 1099.
- Baines, H., positive process in photography, B., 572.
- Bair, W. E., jun. See Mead Corp.
- Baird, D. K. See Ault, R. G.
- Baird, J. Y. See Todd, J. P.
- Baird, P. K., and Doughty, R. H., characterisation of [paper] pulps and stuffs, B., 142.
- See also Chilson, W. A., Seborg, C. O., and Simmonds, F. A.
- Baird, W. See Imperial Chem. Industries.
- Bairstow, S., catalysis of gaseous reactions by chlorine, A., 1252.
- and Hinshelwood, C. N., homogeneous catalysis of gaseous reactions; influence of iodine on the decomposition of acids, esters, ketones, and halides; influence of iodine on decomposition of simple aliphatic amines and of hexane, A., 1125. Homogeneous catalysis of gaseous reactions by iodine; decomposition of propaldehyde, and a general discussion, A., 1251.
- Baity, H. G., Merryfield, F., and Uzzle, A. B., effects of sewage chlorination on the receiving stream, B., 766.
- See also Chrisco, H. F.
- Bakelite Corporation, catalysts for use in oxidation of methyl alcohol, (P.), B., 101. Mouldable compositions, (P.), B., 158. Mouldable [filled] compositions, (P.), B., 597.
- See also Byck, L., and Cheetham, H. C.
- Bakelite Ges.m.b.H., moulding mixtures and articles moulded therefrom, (P.), B., 356. Preparation of resinous condensation products from phenol and formaldehyde, (P.), B., 399.
- and Single, O., moulded [plastic] articles bearing surface designs, (P.), B., 437.
- See also Seebach, F.
- Bakelite, Ltd., and Chubb, S. E., [oil-modified] resinous compositions from phenols and acetaldehyde or polymerides thereof, (P.), B., 596.
- Baker, C. J., and Skaredoff, N. E., open-hearth furnaces, (P.), B., 447.
- Baker, C. P. See Grodinsky, M.
- Baker, E. M. See Harte, C. R., jun., and Leslie, E. H.
- Baker, G. L. See Myers, P. B.
- Baker, H. B., photochemical reaction of hydrogen and chlorine, A., 132.
- Baker, H. C. See Martin, George.
- Baker, H. R. See Bost, R. W.
- Baker, H. S., treatment of cancer with connective tissue extracts, A., 1070.
- Baker, J. C., Parker, H. K., and Freese, F. B., measurement of colour in flour and bread by means of Maxwell discs, B., 1078.
- Schmelkes, F. C., and Wallace & Tiernan Products, Inc., improving the taste and odour of water, (P.), B., 574.

- Baker, J. C., and Wallace & Tiernan Products, Inc., hypochlorite solutions, (P.), B., 227.
- Baker, J. L., and Hulton, H. F. E., removal of sugars from dilute solutions, A., 1037.
- Baker, J. R., spermicidal powers of chemical contraceptives. V. Comparison of human and guinea-pig sperms, A., 422.
- Baker, J. W., salt-forming characteristics of doubly- and singly-linked elements of the oxygen group. V. Rotation of camphor in strong mineral acids, A., 162. Preparation of ethyl  $\beta$ -iodopropionate, A., 375. Synthesis of substances analogous to bile acid degradation products. II. Synthesis of some straight-chain polycarboxylic esters, A., 935. Anomalies in the reactivities of side-chain halogens with special reference to reaction mechanism, A., 1151.
- and Burton, H., synthesis of substances analogous to bile acid degradation products. III. Attempted use of diallyl as an agent to introduce the requisite side-chain in the synthesis of the acid  $C_{15}H_{26}O_6$ , A., 935.
- and Hey, L., salt-forming characteristics of doubly- and singly-linked elements of the oxygen group. IV. Oxonium phosphates of the carbonyl group, and derivatives of the type  $CH_2Ph-COR$ , A., 159.
- Baker, K. F., and Heald, F. D., blue mould in relation to cleaning and packing of apples, B., 169.
- Baker, R. W., and Joubanc, J. C., study of gases in enamelling iron, B., 965.
- Baker, S. See Stream-Line Filter Co.
- Baker, W., molecular rearrangement of *o*-acyloxyacetophenones; mechanism of production of 3-acylchromones, A., 1301.
- Kirby, A. W. W., and Montgomery, (Miss) L. F., derivatives of 1:2:3:4-tetrahydroxybenzene. II, A., 155.
- Morgans, W. M., and Robinson, R., syntheses experiments in the isoflavone group. VIII. Limitations of the phenacyl aryl ether cyanohydrin method, A., 614.
- Robinson, R., and Simpson, N. M., syntheses experiments in the isoflavone group. VII. Synthesis of daidzein, A., 510.
- Baker, W. B., assay of [National Formula V] preparations; strong and mild resorcinol pastes, B., 411.
- Baker, W. C. See Code, G. A.
- Baker, W. E. B., sodium lignosulphonate, (P.), B., 18.
- Baker Perkins Co., Inc. See Silhavy, J. F., and Thurm, R.
- Baker Perkins, Ltd., mixing, kneading, shredding, and similar machines, (P.), B., 129.
- See also Roser, H.
- Bakker, C. J., influence of electric fields on absorption spectrum of potassium, A., 879.
- and Segré, E., Zeeman effect of "forced" dipole lines, A., 108.
- Bakr, A. M. See McBain, J. W.
- Bakunin, M., and Peccerillo, D., indole group. I. Synthesis of 3-phenyloxindole, A., 400.
- Bakwin, H., and Bodansky, O., phosphatase activity of tissue extracts, A., 1081.
- Bal, D. V., and Misra, R. N., growth of rice in heavy black soils of the Central Provinces [of India], B., 36.
- Balabai, A. See Essin, O.
- Balabucha-Popzova, W., determination of pectins in tobacco, B., 571.
- Balachowski, S., and Bruns, B., micro-Kjeldahl method, A., 438.
- Balachowsky, M. A., insecticidal action of vegetable oils utilised in winter treatment of scale insects on forest trees, B., 1074.
- Balada, A. See Schulz, F.
- Balandin, A. A., logarithmic relation between constants of Arrhenius' equation; activation energy of dehydrogenation of cyclohexane in presence of nickel catalysts prepared in various ways, A., 234.
- See also Kazanski, B. A., and Rubinstein, A. M.
- Balandina, V. See Dogadkin, B.
- Balanesco, G., and Motzoc, (Mlle.) M. D., determination of aluminium with 8-hydroxyquinoline in presence of phosphoric acid, A., 138.
- Balansard, J. See Mercier, F.
- Balarev, D., inner adsorption in crystalline salts. V and VI, A., 364, 563. Colloid science and mass-analytical problem, A., 797.
- and Srebov, B., transmission of surface changes in interior of crystals, A., 122.
- Balassa, C. E., treating [removing silver from] photographic baths, (P.), B., 653.
- Balch, R. T. See Browne, C. A., and Paine, H. S.
- Balch, W. B., large respirometer, A., 435.
- Balconi, M. See Hauptmann, H.
- Balczewski, A. See Jablczyński, K.
- Baldaut, L. K. See Baumann, E. J.
- Baldi, B., rapid determination of acid value of olive oil, B., 155.
- Baldinger, L. H., and Nieuwland, J. A., preparation of alkyl-substituted phenylacetonitriles in liquid ammonia, A., 948. Relation of some physical properties to bactericidal action of some  $\alpha$ -phenyl-substituted acids, A., 1084.
- Baldracco, F., analysis of alkali bisulphites, B., 587.
- Baldrige, C. W., and Barer, A., oxygen consumption and nitrogen metabolism. II. In leucemia, A., 629.
- Baldwin, A. W. See Imperial Chem. Industries.
- Baldwin, D. M. See Krueger, A. P.
- Baldwin, E., and Needham, D. M., phosphorus metabolism in embryonic life. III. Phosphagen in avian development, A., 976.
- Baldwin, M. M. See Powell, S. G.
- Balfe, M. P., and Phillips, H., phenylmethylselenetene mercuri-iodide, A., 407. Corrosion of metals by [vegetable] tan liquors. IV. Corrosion of submerged metals in movement, B., 791.
- Balinkin, I. See Wells, D. A.
- Balkema, F. See Voet, A.
- Balks, R., and Rintelen, P., changes in carbon dioxide content of the air by gassing with carbon dioxide in the field, B., 884.
- Ball, E. G., and Chen, T. T., oxidation-reduction. XX. Adrenaline and related compounds, A., 1248.
- Ball, F. K. See Emmert, E. M.
- Ball, G. L., jun. See Long, J. S.
- Ball, H. A. See Technicolor Motion Picture Corp.
- Ball, J. A. B. See Bardorf, C. F.
- Ball, R. H., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XLII. Synthesis of cellulose *o*-chlorobenzyl ethers and mechanism of their formation, A., 150.
- Ball, W. L. See Allen, C. F. H.
- Ballam, G. A. See Parmelee, C. W.
- Ballantine & Sons, P. See Frelinghuysen, G. G.
- Ballard, A. H. See Ridgway, R. R.
- Ballard, E. S., and Standard Process Corp., electroplating metal cylinders, (P.), B., 715.
- Ballard, G., decomposition products of X-ray films, B., 685.
- Ballard, L. A. T., nitrate supply and transpiration ratio in plants, A., 1342.
- Ballard, M. M. See Huston, R. C.
- Ballay, M., and Le Thomas, A., copper-nickel-silicon alloys, B., 510.
- See also Guillet, L.
- Ballet. See Boisselet.
- Ballif, L., and Gherscovici, I., acid-base equilibrium in the dog during experimental uranium nitrate poisoning, A., 312.
- Ballowitz, K., adsorption of calcium ions on caseinogen in milk, A., 177. Chemical changes produced in caseinogen by boiling, A., 969. Effect of boiling on coagulation by rennin of caseinogen, A., 969.
- Balls, A. K., and Hale, W. S., determination of hydrogen peroxide, A., 1022. Determination of peroxidase in agricultural products, A., 1201. Determination of catalase in agricultural products, B., 518.
- and Köhler, Franz, aminopolypeptidase. II, A., 1081.
- Baló, J., and Lovas, L., enzyme content of human pancreas [in disease], A., 973.
- Balthasar, K., magnesia in Portland cement, B., 466.
- Baltzer, F., gastric mucus. I. Determination, A., 1068.
- Baltzy, R., and Bass, K., influence of the migrating group in the Fries isomerisation, A., 1287.
- Balz, G., check valve for water filter-pumps, A., 44.
- Balz, O., and Wagner, W., decomposition of crude phosphates, (P.), B., 547.
- Bamann, E., Mahdihassan, S., and Laeverenz, P., asymmetric ester hydrolysis by enzymes. VIII. Comparison of the optical selection of liver-esterase in various stages of development of the organ, A., 534.
- and Portmann, J. M., preparation of stereoisomeric methoxyphenylacetic acids by resolution of the racemic acid, A., 64.
- See also Schwab, G. M.
- Bamberger, P., effect of lipins of cells on swelling of gelatin, A., 1318.
- Bamblott, F., and Packard Motor Car Co., treatment of [hardened] metal articles, (P.), B., 632.
- Bamford, J. T., firing of ceramic ware, (P.), B., 867.
- Ban, N., determination of sp. gr. [of rubber products], B., 597.
- Ban, T. See Hiki, Y.
- Banchetti, A., use of bimetallic electrodes in potentiometric acidimetry. I. Behaviour in buffer solutions. II. Behaviour during the titrations, A., 135.

- Bancroft, G., and Fry, E. G., adsorption and hydrolysis of glycogen, A., 457.
- Bancroft, W. D., and Butler, F. J. C., solubility of succinic acid in binary mixtures, A., 19.
- and Farnham, E. C., alumina lakes, B., 198.
- and Gurchot, C., scattering of light, A., 7.
- Guttsell, R. S., and Rutzler, J. E., jun., reversible coagulation in living tissue. XI., A., 532.
- and Rutzler, J. E., jun., colloid chemistry of the nervous systems. VI., A., 185.
- Agglomeration theory of sleep, A., 532.
- Bandau, K., hydrogenated oils in margarine industry, B., 274. [Use of] salt in refining of oils, B., 513. Working-up of soap stock from oil refining, B., 973.
- Bandel, G. See Tammann, G.
- Bandemer, S. L. See Miller, E. J.
- Banderet, E., Liesegang rings produced by electrolysis, A., 786.
- Bandler, C. G., and Killian, J. A., blood determinations of ammonia and sulphur as factors in the uraemia of urinary obstructions, A., 854.
- Bandmann, M. See Zondek, S. G.
- Bandon Milling & Electric Lighting Co., Ltd. See Murphy, J.
- Bandte, G., petroleum bitumens, B., 179.
- Bandy, M. C., castanite from Chuquicamata, Chile, A., 928.
- Banerjee, R. See Brahmaehari, P.
- Banerjee, K., determinations of the signs of the Fourier terms in complete crystal structure analysis, A., 891.
- Banerjee, S., and Sen, H. K., kinetics of the action of ammonium halides on epichlorohydrin, A., 130.
- See also Krishnan, K. S.
- Banerjee, S. K., azlactone from 6-aldehydocoumarin and its condensation with aromatic amines, A., 163.
- Banerjee, S. N., and Ghosh, Satyeshwar, viscosity of ferric phosphate sol at different pressures, A., 1115.
- Baderji, D., and Ganguli, R., deposits of metallic mercury by high-frequency discharge, A., 341.
- Bang, O., treatment of diabetes with diet rich in carbohydrates, A., 302.
- Banga, J., Laki, K., and Szent-Györgyi, A., oxidation of lactic and  $\beta$ -hydroxybutyric acids by heart-muscle, A., 748, 1330.
- and Szent-Györgyi, A., co-enzyme of lactic acid oxidation, A., 748.
- Banga, J. See Barrenscheen, H. K.
- Bangert, H. See Offenbau-Ges.m.b.H.
- Banik, E., elimination of hydrogen sulphide from [beet-factory] waste waters, B., 334.
- Bankowski, O. See Klemenc, A.
- Banks, A., and Hilditch, T. P., composition of fatty materials found in ancient Egyptian tombs, A., 624. Nature of antioxidants present in natural fats. II. Removal of antioxidants from olive and linseed oils, B., 73.
- Hilditch, T. P., and Jones, E. C., component fatty acids of rat-body fats, A., 1183.
- Banks, B. G. See Berry, A. G. V.
- Banks, C. W., tunny fish canned in Great Britain, B., 1082.
- Banks, H. P. See Eilertsen, L. W.
- Banks, H. W., and Loomis, Stump, & Banks, colloidal fungicidal metallic composition, (P.), B., 119.
- Banks, W. H. See Davies, C. W.
- Bann, T. See Hiki, Y.
- Bannet, I. See Glaser, E.
- Bannister, A. R., apparatus for emulsifying liquids, (P.), B., 336.
- Bannister, F. A. [with Hey, M. H.], identity of mottramite and psittacinite with cupriferous desloizite, A., 802.
- See also Hey, M. H.
- Bannister, W. J. See Swallen, L. C.
- Banniuh, Z. S. See Vinyanski, Y. E.
- Banov, A. W., effect of temperature on extinction of fluorescence of dye solutions by electrolytes, A., 446.
- Banse, H., and Parks, G. S., thermal data on organic compounds. XII. Heats of combustion of nine hydrocarbons, A., 1014.
- Banta, A. P., incineration of [sewage] skimmings, B., 941.
- Banta, C. See Barrett Co.
- Baraboshkin, S. N., calculation of minimum copper content in matte required in a plant of a given capacity, B., 309.
- Baragar, A. E. See Marvin, H. H.
- Barak, M., and Hartley, (Sir) H. B., electrical conductivity of solutions of univalent salts in ethyl alcohol, A., 907.
- Barb, C. F. See Beckstrom, R. C.
- Barbade, P., quality of grain used in preparation of edible pastes, B., 167.
- Barbaro, L. See Corbellini, A.
- Barbaudy, J., flocculation of beet juice, B., 325.
- Barber, C. L., and Kester Solder Co., soldering fluxes, (P.), B., 972.
- Barber, D. R., artificial daylight illuminator, A., 800.
- Barber, H. B. See De Coriolis, E. G.
- Barber Asphalt Co. See Smith, P. R.
- Barbera, G., presence of sucrose in vine leaves, A., 652. Extractive substances of wines. I. Pectins and gums. II. Nitrogen compounds, B., 568.
- Barbet, E., recent progress applied to extraction and purification of benzol, B., 994.
- Barbier. See Pariselle, H.
- Barbier, G., balancing of manures, B., 839.
- Barbier, H., and Givaudan-Delawanna, Inc., preparation of citrylideneallylacetone, (P.), B., 955.
- Barbière, J. See Duclaux, J.
- Barbieri, G. A., electrolytic preparation of complex salts of bivalent silver, A., 34.
- and Tettamanzi, A., new complex compounds of silver cyanide with sodium cyanide, A., 36. Bivalent chromium compounds, A., 39.
- Barbieri, N. A., insecticidal action of tabacol, B., 647.
- Barborka, C. J., the ketogenic diet and its use, A., 1324.
- Barbosa, O., ferrous manganous phosphate (zwieselite) found in São Gonçalo, Rio de Janeiro, A., 1268.
- Barbot, A., so-called polyundecenoic acids, A., 935.
- Barbour, A. D., deposition and utilisation of isooleic acid in the animal body, A., 857.
- See also Henry, W. C.
- Barbour, H. G. See Horwitt, M. K.
- Barch, W. E., oxidation of  $\delta$ -ketogluconic acid with nitric acid in presence of vanadium, A., 1144.
- Barchmann, H. See Müller, Erich.
- Barcikowski, J., and Kielczewski, J., minimum charge of mercury fulminate, B., 988.
- Barclay, E. H. See Patrick, W. A.
- Bard, P. See Lundstrom, H. M.
- Bardach, M. See Basset, J.
- Bardenheuer, P., metallurgical processes in open-hearth steel manufacture, B., 789.
- and Bottenberg, W., dephosphorising and desulphurising [steel] in the high-frequency induction furnace, B., 1057.
- and Thanheiser, G., metallurgy of the Thomas process [for steel], B., 708.
- Bardhan, J. C., and Sengupta, S. C., resin acids. II. 1-Methyl-7-isopropylphenanthrene (retene), A., 57.
- Bardorf, C. F., and Ball, J. A. B., cane wax in raw and refined sugars, B., 202.
- Bardwell, K. See Baumberger, J. P.
- Bareiss, M. See Gen. Electric Co.
- Barer, A. See Baldrige, C. W.
- Barg, E. L., sealing wax and lead seals with a base of bitumen composition, B., 799.
- Barger, G., and Scholz, C., yohimbine (quebrachine). IV. Harman, a degradation product, A., 840.
- Eisenbrand, T., Eisenbrand, L., and Schlittler, E., constitution of laurotetanine, A., 405.
- Girardet, A., and Robinson, R., constitution of carpine. II., A., 288.
- Bari, S. von, evaluation of medicinal carbon and carbon preparations, B., 410.
- Bariéty, M. See Achard, C.
- Barium Reduction Corporation. See Pierce, J. B., jun.
- Barkan, G., iron. VI. Determination and properties of the "easily eliminated" iron in blood. VII. Behaviour of inorganic iron on addition to blood, A., 623. Blood-iron in haemocyanin animals, and ease of elimination of copper from haemocyanin, A., 1315.
- and Kingisepp, G., determination of iodine according to Kuhn and Loeser, A., 106.
- Barker, A. F., report to the New Zealand Government on English Leicester (38's/42's), Romney (44's/46's), Romney (46's/48's), and Corriedale (50's/56's) wools, B., 343.
- Barker, A. H., relative fuel economy of electricity, gas, oil, and solid fuel as heating agents, B., 576.
- Barker, B. T. P., and Grove, O., clarification of ciders by the centrifuge method I., B., 442.
- Barker, E. F., rotational fine structure in Raman spectra, A., 208. Constants of the nitrous oxide molecule, A., 1233.
- and Adel, A., resolution of the two difference bands of CO<sub>2</sub> near 10  $\mu$ , A., 998.
- See also Choi, K. N., and Hardy, J. D.
- Barker, H. A., water content and rate of heat denaturation of crystallisable ovalbumin, A., 1178.
- Barker, Jack. See Cornbrook Chem. Co.
- Barker, John, plant respiration. IV. Relation of respiration of potatoes to concentration of sugars and to accumulation of a depressant at low temperatures; (i) effect of temperature-history on respiration/sugar relation; (ii) form of normal respiration/sugar relation and mechanism of depression, A., 435.

- Barker, J. H., Eastland, C. J., and Evers, N., colorimetric determination of adrenaline in suprarenal gland extracts, A., 320.
- Barker, S. G. [with Hill, Edgar], physical significance of crimp or waviness in the wool fibre, B., 298.
- Barker, W. G., perpetual-life film tank developer, B., 205.
- Barkla, C. G., properties of X-radiation, A., 332.
- and Kay, J. S., determination of the J-discontinuity by a condition of matter; J-phenomena. X, A., 881.
- Barksdale, I. S., bactericide, (P.), B., 845.
- Barlas, M. See Heublyum, R.
- Barlett, H. B., and Schwartzwalder, K., effect of organic grinding media on water-soluble silica frits, B., 965.
- Barlot, J., analysis of bituminous schists, B., 532. Pyrogenation of bituminous schists of the Franch-Comté Jura, B., 1041.
- Barlow, C. H. See Imperial Chem. Industries.
- Barlow, O. W., comparison of effects of morphine, pantopon, codeine, narcotine, and papaverine on respiration of rats and rabbits, A., 1198.
- and Duncan, J. T., influence of morphine on premedication value of tribromoethanol (avertin) in relation to nitrous oxide anaesthesia in the rat, A., 1198.
- Influence of morphine on premedication values of ethyl  $\alpha$ -methylbutyl-barbiturate (pentobarbital) and ethyl-isoamylbarbituric acid (amytal), A., 1198.
- Barmen, W. See Witteborg, W.
- Barmore, M. See Parks, G. S.
- Barnard, A. E., and Dispersions Process, Inc., reclaiming of vulcanised rubber, (P.), B., 559.
- Barnard, J. H. See Stull, A.
- Barnard, R. D., effect of cyanide and of variation in alkalinity on the oxidation-reduction potential of the haemoglobin-methaemoglobin system, A., 520. Nature of oxygen linking in oxyhaemoglobin, A., 1180.
- Barnes, A. H., structure of X-ray K absorption limits of the elements manganese to zinc, A., 993.
- Barnes, B. O., excretion of iodine in experimental hyperthyroidism, A., 741.
- See also Regan, J. F.
- Barnes, B. T. See Forsythe, W. E.
- Barnes, C. See Gordon, A. R.
- Barnes, C. E. See Kohler, E. P.
- Barnés, D. See Kohlrausch, K. W. F.
- Barnes, E. E. See Conrey, G. W.
- Barnes, H., O'Brien, J. R. P., and Reader, V., vitamin-B<sub>1</sub>, A., 325.
- and Peters, R. A., use of pure phosphotungstic acids in the precipitation of bases. I. Method of checking purity of 1:24-phosphotungstic acid. II. Influence of [H<sup>+</sup>] and other factors on precipitation of bases, A., 264.
- Barnes, K. B., oil recovery, B., 659.
- Barnes, L. L., temperature variation of the positive-ion emission from molybdenum, A., 109. Emission of positive ions from heated metals, A., 109.
- and Gibbs, R. C., positive ions of mass 220, A., 1223.
- Barnes, M. N. See Rahn, O.
- Barnes, P. S., glass-lined steel equipment in chemical industry, B., 991.
- Barnes, R. B., preparation of "reststrahlen" plates and reflexion power of powders, A., 208. Effect of water on plasticity of rock-salt, A., 342.
- and Czerny, M., can the eye distinguish a "schrot" effect for photons? A., 111.
- Barnes, T. C., possible physiological effect of the heavy isotope of hydrogen in water, A., 1329.
- Barnett, A. J. G. See Rule, H. G.
- Barnett, E. de B., and Cook, J. W., synthesis of cadalene, A., 268.
- and Lowry, R. A., 2:3-benzanthrone and 2:3-benzanthranlyl acetate, A., 67.
- and Sanders, F. G., synthesis of homologous naphthalenes, A., 601.
- Barnett, H. M., leucine and dileucine hydrochloride; isolation of leucine, A., 598.
- See also Goldblatt, H.
- Barnett, (Miss) M. M. See Rule, H. G.
- Barnett, S. J., gyromagnetic ratios for nickel and cobalt, A., 1226.
- Barnhart, J. L. See Thurston, L. M.
- Barnitt, J. B., and Aluminum Co. of America, adsorbent material, (P.), B., 465.
- Derr, R. B., and Aluminum Co. of America, heat insulator, (P.), B., 527.
- Barnóthy, J., atomic disintegration by cosmic rays, A., 1100.
- Baron, C., carburetting in internal-combustion engines, B., 376.
- Baroni, A., lithium alloys. I. Thermal and X-ray analysis of the system lithium-tin, A., 18. Diselenomexanilides and oxyselenanilides, A., 171.
- Selenium sulphur protochloride, A., 241.
- Preparation and decomposition of mixed acid anhydrides, A., 375.
- Baroni, G., determination of oxidised fatty acids in threads and crêpes, B., 910.
- Barr, F. See Edgar, R.
- Barr, G., measurement of porosity of textiles, B., 55.
- and Thorogood, A. L., measurement of viscosity of tar, B., 49.
- Barralet, F. O., and Richards, C. E., device for indicating the presence of a chemical substance by colour change, B., 846.
- Barratt, S. See MacWalter, R. J., and Pedder, J. S.
- Barrell, H. See Sears, J. E.
- Barrenscheen, H. K., Banga, J., and Braun, K., colorimetric determination of phosphate in presence of arsenate; induced reactions, A., 1261.
- and Beneschovsky, H., rôle of thiol compounds in carbohydrate degradation, A., 187. Glycolysis, A., 1202.
- Braun, K., and Filz, W., action of co-enzyme. VI. Constitution of adenosinetriphosphoric acid, A., 1202.
- and Danzer, W., deamination of glycine by pyrocatechol derivatives and identification of glyoxylic acid as intermediate product, A., 1148.
- and Filz, W., chemical characterisation of stryphnone (4-*w*-methylamino-acetopyrocatechol), A., 161.
- and Klebermass-Messiner, L., phosphorylated glyceraldehyde, A., 1277.
- Scheppach, K., and Claudatus, J., fate of added methylglyoxal in blood and muscle, A., 187.
- Barrett, C. S., nature of solid solution of aluminium in silver, A., 771. X-Ray studies on lead-acid storage batteries, B., 352.
- Barrett, C. S., and Kaiser, H. F., new orientations forming in a crystal of silver-copper during precipitation, A., 1238.
- See also Kaiser, H. F.
- Barrett, E. P., heat of sorption of water vapour by massive gold, A., 1240.
- and Gauger, A. W., sorption of water vapour by glass, A., 221.
- See also Barry, F.
- Barrett, E. V. See Peck, J. S.
- Barrett, H. J. See Du Pont de Nemours & Co., E. I.
- Barrett, H. N., and Dolomite, Inc., refined magnesia product from mineral sources of magnesia, (P.), B., 914.
- Barrett, M., refractory linings for modern blast furnaces, B., 62.
- Barrett Co., and Banta, C., motor benzol, (P.), B., 10.
- See also Cowdery, A. B., Craver, A. E., Downs, C. R., Drewsen, P., Eckert, C. R., Ellms, E. H., Forrest, L. R., Hamlin, M. L., Harvey, Edward W., Hill, J. R., Kratoville, J. C., Leaper, J. M. F., McCloskey, G. E., Miller, S. P., Moses, F. G., Radasch, A. H., Rogers, A., Steere, F. W., Weiss, J. M., Wittenberg, L., and Zaveritnik, J., jun.
- Barringer, L. E. See Brit. Thomson-Houston Co.
- Barriitt, J., methionine in wool, B., 541.
- and King, A. T., sulphur content of wool. IV. Further evidence of variable sulphur content of wool, B., 500.
- Barritt, N. W., nitrogen and plant nutrition, A., 1092.
- Barrolier, J. See Leschewski, K.
- Barron, D. H., factors influencing susceptibility of albino rats to injections of sodium amytal, A., 633.
- Barron, E. S. G., and Hastings, A. B., biological oxidations. II. Oxidation of lactic acid by  $\alpha$ -hydroxyoxidase and its mechanism, A., 533.
- Barron, G. L., sponge rubber, B., 239.
- Difficulties in manufacture of sponge rubber, B., 557.
- Barrow, W. H., acid response of the stomach to test meals of protein, fat, and carbohydrate, A., 178.
- Barry, F., and Barrett, E. P., thermal effects produced by exposure of massive gold to saturated water vapour, A., 1014.
- and Smith, Alfred K., calorimetric method for determining rates of interdiffusion of reacting liquids, A., 772.
- Barry, F. S. See Farmer, C. J.
- Barsch, H., distinction between malt- and barley-coffee, B., 444. Detection of vinasse vinegar in wine vinegar, B., 1030.
- Barski, N., tomato-seed oil, B., 877.
- Barsky, G., cyanamide, A., 151.
- and Amer. Cyanamid Co., urea, (P.), B., 856.
- Heuser, R. V., and Amer. Cyanamid Co., [organic] dithiophosphates, (P.), B., 964.
- Wohnsiedler, H. P., and Amer. Cyanamid Co., urea-acetaldehyde-formaldehyde resin, (P.), B., 929.
- Barsties, W., photo-electric cells and their uses, (P.), B., 236.
- Barstow, E. O., and Dow Chem. Co., preparation of anhydrous magnesium chloride from magnesium oxychloride cement mixtures, (P.), B., 547.
- Dressel, G. F., and Dow Chem. Co., [chlorine] gas purification, (P.), B., 626.



- Barstow, E. O., Heath, S. B., and Dow Chem. Co., distillation of hydrogen halides, (P.), B., 105. Method of contacting solid and gaseous materials, (P.), B., 130. hydrochloric acid, (P.), B., 624. Dehydration of magnesium chloride, (P.), B., 625. Calcium magnesium chloride, (P.), B., 748.
- See also Dow Chem. Co.
- Barsukov, A. See Zabolotski, M.
- Barsukov, G. S., depression of the specific viscosity of cellulose nitrate, A., 779.
- Bart, B., and Frink Corp., depositing on chromium, (P.); B., 554.
- Barta, L., drying and fermentation of tobacco. II. Relationship of enzyme content (peroxidase oxygenase, catalase) of tobacco and disappearance of nicotine during fermentation, A., 438.
- and Toole, E., nicotine and ammonia contents of cigarette tobacco smoke, B., 43.
- See also Bodnár, J.
- Bartell, F. E., Case, L. O., and Brown, H., interfacial tension of mercury in contact with organic liquids, A., 775. Surface tension of mercury and water in contact with saturated vapours of organic liquids [at 25°], A., 899.
- Miller, F. L., and Almy, E. G., application of the Gibbs adsorption theorem to solid-liquid interfaces, A., 347.
- and Osterhof, H. J., adhesion tension; pressure of displacement method, A., 775.
- and Whitney, C. E., adhesion tension; receding contact angle, pressure of displacement method, A., 122.
- and Wooley, A. D., solid-liquid-air angles and their dependence on the surface condition of the solid, A., 1114.
- Bartels, H., displacements and their significance in (PP)-combinations of the sodium are spectrum, A., 107.
- See also Eimer, K.
- Bartels, L. C., Beruldsen, E. T., and Morgan, A., irrigated pastures; manurial trials, B., 565.
- Bartels, W., determination of citric acid in wine, B., 328.
- Bartelt, O., and Eekstein, L., sulphur spark spectrum S II, A., 1221.
- See also Meissner, K. W.
- Barth, G., and Dember, H., effect of temperature on crystal photo-effect, A., 447.
- Barth, K. See Berl, E.
- Barth, T. F. W., structure of minerals of sodalite family, A., 13. Composition of noscan and haityne, A., 482.
- and Ksanda, C. J., mellite, A., 928.
- Barthel, C., growth of *B. radicola* under reduced oxygen pressure, A., 96.
- and Bengtsson, N., nitrification of stall manure in arable soil. VIII., B., 563.
- See also Haglund, E.
- Barthelmess, E., and Rosin, P., pneumatic drying of materials, (P.), B., 368.
- Barthelmess, H., grinding mills, (P.), B., 992.
- Barthmeyer, H. See Schmalfuss, Hans.
- Bartholomé, E., character of linking in hydrogen halides deduced from absolute intensity measurements on infra-red ground vibration bands, A., 1227. Infra-red spectra of propane and diacetylene, A., 1228.
- and Teller, E., calculation of characteristic frequencies of organic chain-molecules by means of models, A., 114.
- Bartholomew, G. P., and Amer. Smelting & Refining Co., coking process, (P.), B., 950.
- Bartholomew, R. P., and Janssen, G., rate of absorption of potassium by plants and its possible effect on the amount of potassium in soils from applications of potassium fertilisers, B., 163.
- See also Janssen, G.
- Barthoux, J., lapis lazuli and spinel in crystalline limestone in Afghanistan, A., 588. Siwaliks and recent volcanic rocks in Afghanistan, A., 589.
- Bartlett, B. G. W., apparatus for drying or mixing stone, etc., (P.), B., 64.
- Bartlett, B. W., variation of paramagnetic susceptibility with temperature, A., 1233.
- Bartlett, J. F., and Garland, C. E., nitro-cyclohexylphenols and their derivatives, A., 707.
- Bartlett, J. H., and Hinkson, J. C., apparatus for making cellulose xanthate, (P.), B., 103.
- Bartlett, J. H., jun., structure of atomic nuclei, A., 1226.
- and Gibbons, J. J., jun., isotope shift in neon, A., 1220.
- See also Brown, F. W.
- Bartlett, K. W., and Jenkins Petroleum Process Co., treatment of hydrocarbon dephlegmation products, (P.), B., 695.
- Bartlett, P. D., semicarbazone formation and incomplete dissociation of a salt of the ammonium type, A., 382.
- Bartlett Fayard Co. See Genter, A. L.
- Bartling, F., conservation of unstable, hygroscopic, or volatile granular masses [e.g., ammonium bicarbonate], (P.), B., 463. Conservation of granular materials, (P.), B., 897.
- Barton, G. W. See Bassett, H.
- Barton, R. C. See Murdoch, P. G., and Swift, E. H.
- Barton-Wright, E., and McBain, A., virus diseases of the potato: comparison of carbohydrate metabolism of normal with that of leaf-roll potatoes, A., 546.
- Bartos, B. See Steiner, D.
- Bartow, E., and Benninghoff, W. M., analysis of mineral content of Steffen's waste [from sugar beet], B., 325.
- Black, A. P., and Sansbury, W. E., formation of floc by ferric coagulants, B., 814.
- and Fry, M. A., removal of positive ions [from water] by electro-osmosis apparatus, B., 366.
- See also Black, A. P.
- Bartsch, O., preparation of nitroglycerin tablets, B., 91.
- Bartscher, E. See Zipf, K.
- Bartuněk, E. See Glazunov, A.
- Bartunek, R. See Stöckly, J. J.
- Barve, P. M. See Desai, B. N.
- Bary, P., cause of thixotropy, A., 225.
- and Fleurent, E., degradation limit of rubber solutions, B., 722.
- Baschenova-Koslovskaja, L. I. See Krestinski, V.
- Basha, M. K. A. See Hassan, A.
- Bashford, R. I., and Atlas Powder Co., low-density explosive, (P.), B., 733.
- Basil, J. L. See Herschman, H. K.
- Basili, R. See Hassan, A.
- Basiński, A., variation of electrokinetic potential of silver halide colloids on dilution, A., 461.
- Basore, C. A., glass from [blast]-furnace slag, B., 669.
- Bass, K. See Baltzy, R.
- Bass, R., analysis of azine dyes, A., 723.
- Bass, S. L., Fenn, H. N., and Dow Chem. Co., 5-phenylsalicylic acid, (P.), B., 219.
- Basset, J., pressure chamber enabling reactions at any temperature and under pressures up to 15,000 kg. per sq. cm. to be observed visually or photographed, A., 248.
- Lisbonne, M., and Machebœuf, M. A., action of high pressures on pancreatic juice, A., 749.
- and Machebœuf, M. A., biological effects of high pressure: resistance of bacteria, enzymes, and toxins to very high pressures, A., 313.
- Machebœuf, M. A., and Sandor, G., biological effects of high pressures; effects of very high pressures on proteins, A., 1181.
- Wollman, E., Machebœuf, M. A., and Bardach, M., biological effects of high pressures; action of very high pressures on bacteriophages and vaccinia virus, A., 640.
- Bassett, H., Barton, G. W., Foster, A. R., and Pateman, C. R. J., ternary systems mercuric chloride-water-alkaline-earth chloride or cupric chloride, A., 352.
- and Bedwell, W. L., phosphates. I. Ammonium magnesium phosphate and related compounds. II. Orthophosphates of the type  $M_3(PO_4)_2 \cdot xH_2O$ . III. Complex orthophosphates of sodium and a bivalent metal, and some orthophosphate solid solutions, A., 918.
- Bassett, H. L., and O'Leary, (Miss) A., reactivity of aromatic hydroxyl groups. III., A., 154.
- Bassett, H. P., preparation of cellulose [cuprammonium] solutions, (P.), B., 585. Purification of cellulose material, (P.), B., 700. Recovery of tin [from dross, etc.], (P.), B., 834.
- Bassett, I. P. See Miller, R. L.
- Bassett, W. H., beryllium, B., 471.
- and Amer. Brass Co., wrought metal article, (P.), B., 713.
- Leach, R. H., and Anaconda Wire & Cable Co., [copper] alloy, (P.), B., 873.
- Bassi, U., and Castrovilli, G., behaviour of cholesterol in saturnism, A., 973.
- Bassindale, R. See Southgate, B. A.
- Basso, J., effect of sugar on mortars, B., 868.
- Bastanova, L. See Arbusov, B. A.
- Basterfield, S., and Greig, (Miss) M. E., urethanes. VI. Acyl monourethanes and their reactions with ammonia and amines, A., 813.
- and Tomecko, J. W., ionisation constants of *p*-nitrophenylacetic and phenylmalonic acids, A., 780. *iso*Carbamides and *isoureides*. III. Ionisation constants of *isocarbamides*, A., 780.
- Bastian, E., cooking temperatures of [China] wood oil, B., 315.
- Bastien, P., dissolution of products of corrosion from light and ultra-light alloys, B., 872.
- See also Portevin, A.
- Bastisse, E. See Demolon, A.
- Basu, K. P., and Nath, M. C., proteolytic enzymes in plants; juice of *Calotropis gigantea* (Akanda), A., 876.
- Basu, N. K., tuberculosis and deficiency of vitamin-A in diets of young children in India, A., 973.

- Basu, T.** See **Dutta, R. L.**
- Basu, U.**, keto-methylene condensation, A., 809.
- Bataafische Petroleum Maatschappij**, absorption of olefines in strong acids, (P.), B., 10. Treatment of residues obtained in cracking of oil, (P.), B., 377. Alcohols [from olefines], (P.), B., 776. Motor fuels [of high anti-knock value], (P.), B., 821. Alcohols [from olefines and sulphuric acid], (P.), B., 855. Substituted carboxylic acids or carbonyl compounds, (P.), B., 856. Dehydrating or wetting aqueous substances [cellulose nitrates] with organic liquids, (P.), B., 906. Heat-transmitting materials, (P.), B., 992. Manufacture of viscous oil by polymerisation of cracking products, (P.), B., 997.
- and **Deanesly, R. M.**, chlorination of paraffin [aliphatic] and aromatic hydrocarbons, (P.), B., 1046.
- and **De Simo, M.**, acid anhydrides, (P.), B., 421. Ketones [from secondary alcohols], (P.), B., 776.
- Edlund, K.**, and **Evans, T.**, preparation of mixed ethers [from olefines], (P.), B., 822.
- and **Lacomble, A. E.**, thermal decomposition of hydrocarbons, (P.), B., 614.
- and **Fyzel, D.**, ammonium salts, (P.), B., 506.
- and **Fyzel, F. M.**, thermal decomposition of hydrocarbons, (P.), B., 536, 614.
- See also **Loebel, A.**, and **Meijer, R.**
- Batchell, G. W.** See **Bulask, F. J.**
- Batchelor, J. C.** See **Marconi's Wireless Telegraph Co.**
- Bate, S. C.** See **Brit. Celanese.**
- Bateman, E.**, effect of concentration on toxicity of chemicals to living organisms, B., 517.
- Bateman, R. C.** See **Goodyear Tire & Rubber Co.**
- Bateman, R. L.**, and **Mathers, F. C.**, electrodeposition of lead from dithionate baths, B., 923.
- Bates, G. H.**, distribution and control of the great stinging nettle, B., 202.
- Bates, H. R.**, and **Internat. Agricultural Corp.**, fertilising material, (P.), B., 567.
- Bates, J. R.**, kinetics of mercury-sensitised reaction between hydrogen and oxygen, A., 236. Reaction of hydrogen atoms with oxygen and the hydrogen-chlorine reaction, A., 358. Reaction of hydrogen atoms with oxygen molecules, and life of  $\text{H}_2\text{O}_2$ , A., 1257.
- and **Lavin, G. I.**, photo-oxidation of gaseous hydrogen iodide, A., 237.
- and **Salley, D. J.**, hydrogen peroxide in mercury-sensitised hydrogen-oxygen reaction, A., 236.
- Bates, L. F.**, correlation of thermo-electric and thermo-magnetic data, A., 1109.
- Bates, O. K.**, thermal conductivity of liquids, B., 415.
- Bates, P. H.**, Portland cement to-day and twenty years ago, B., 467.
- See also **Carlson, E. T.**
- Bates, S.**, and **Mickley Coal Co.**, drying apparatus, (P.), B., 896.
- Bates, S. J.**, and **Urmston, J. W.**, activity coefficients of hydrochloric acid in aqueous solutions containing either sodium or potassium perchlorate, A., 1245.
- Batger, L. B.** See **Oskamp, J.**
- Bath, T. F. W.** See **Kracek, F. C.**
- Batho, H. F.**, neutralisation and ionisation of high-velocity ions of neon, argon, and krypton by collision with similar atoms, A., 203.
- Batik, B.**, formation of nitrodiacetoluenesulphonic acid in trinitrotoluene washwaters by action of sodium sulphite, B., 988.
- Baton, F. D.**, presence of sucrose in branches and leaves of *Euonymus europaeus*, A., 104.
- Batsch, H.**, rotation structure and Zeeman effect of NH bands, A., 991.
- Batt, A. O.** See **Budnikov, P. P.**
- Batta, G.**, and **Leclerc, E.**, control of atmospheric pollution, B., 1087.
- See also **Mage, J.**
- Battegay, M.**, and **Denivelle, L.**, aryl chlorosulphates and aryl sulphites, A., 386.
- and **Hégazi, E.**, thiocarbamyl chloride, A., 702. Thiocarbamyl chloride; thiocyanic acid, A., 1149.
- and **Kientzle, P.**, [printing a] chrysoidine brown shade, B., 425.
- Batterman, H.**, and **Hunt, A. P.**, preparation of bentonite compositions, (P.), B., 549.
- Batley, W. A.**, and **Pennsylvania Crusher Co.**, crushing machinery, (P.), B., 688.
- Battin, W. I.** See **Rusby, J. M.**
- Battistella, F. C.**, and **Sanitation Holding Corp.**, removal of rust, scale, and sediment from the interior of metal surfaces, (P.), B., 874.
- Battistini, S.**, **Herlitzka, L.**, and **Cossu, B.**, galactose (?) in the blood of pregnant women, A., 972.
- Battrick, W. E.** See **Britton, H. T. S.**
- Batuecas, T.**, hydrogen sulphide, A., 1006.
- See also **Moles, E.**
- Baturin, V. P.**, mineralogical composition and oil yield from sands, A., 1032.
- Baud, P.**, soda-ash factory of N. Leblanc, B., 384. John Holker and manufacture of sulphuric acid in France in the 18th century, B., 587.
- Bandisch, O.**, magnetic iron oxide and its hydrate, A., 362. Active iron, A., 581.  $\gamma$ -Ferric oxide hydrate, and  $\gamma$ -ferric oxide, (P.), B., 914.
- and **Dyer, E.**, *o*-quinone test for cysteine, A., 266.
- and **Welo, L. A.**, formation of  $\alpha$ - $\text{Fe}_2\text{O}_3$  from  $\gamma$ - $\text{Fe}_2\text{O}_3 \cdot \text{H}_2\text{O}$  by friction, A., 1022. Magnetic and X-ray investigations of the ageing of hydrated ferrous oxide, A., 1131.
- Baudonin, A.**, **Lewin, J.**, and **Azérad**, regulation of blood-calcium in the dog, A., 521.
- Baudrexler, H.** See **Hönigschmid, O.**
- Bauer.** See **Travers, A.**
- Bauer, E.**, **Magat, M.**, and **Da Silveira, A.**, Raman spectrum of calcium nitrate, A., 886.
- Bauer, Hans**, theory of Liesegang precipitates, A., 898.
- Bauer, Hellmut**, and **Fromherz, K.**, assay of digitalis in the cat, A., 1327.
- Bauer, Hugo**, and **Burschies, K.**, preparation of germanium tetrahalides, A., 240. Sulphur-lead union, A., 940. Organic compounds of germanium, II., A., 1062.
- and **Strauss, E.**, reaction of proteins with iodic acid, A., 172.
- Bauer, K.**, **Noziczka, F.**, and **Stüber, O.**, chlorination and dechlorination of drinking water, B., 1038.
- Bauer, K. H.**, and **Dietrich, H.**, pigment of birch buds, A., 1055.
- Bauer, O.**, and **Deiss, E.**, liquation in a silver block, B., 393.
- and **Hansen, M.**, influence of a third metal on constitution of brasses. V. Manganese, A., 669.
- and **Schikorr, G.**, action of liquid fuels containing alcohol on aluminium and its alloys, B., 552. Action of [motor] fuels containing alcohol on aluminium and its alloys, B., 1014.
- Vollenbruck, O.**, and **Schikorr, G.**, potential measurements and solution tests on tin- and zinc-copper alloys, B., 193.
- Weerts, J.**, and **Vollenbruck, O.**, properties of monel metal and similar copper-nickel alloys, B., 672. Monel metal and similar copper-nickel alloys, B., 1013.
- and **Zunker, P.**, effect of temperature and the presence of impurities on rolling of zinc, B., 193. Effect of deformation by cold- and hot-rolling on density of zinc, B., 871.
- Bauer, R.**, f.-p. depression constant of milk during a lactation period, B., 329.
- Bauer, R. C.** See **Staudinger, H.**
- Bauer, W.**, **Short, C. L.**, and **Bennett, G. A.**, manner of removal of proteins from normal joints, A., 856.
- See also **Albright, F.**
- Baughman, W. F.** See **Jamieson, G. S.**
- Baukloh, W.** See **Lewkonja, G.**
- Baule, M. E. A.** See **Ducamp, A. J.**
- Baum, E.** See **Herrmann, W. O.**
- Baum, K.**, influence of moisture content of coal on heat consumption during coking, B., 209. Increasing the gas yield [from coal carbonisation], B., 611.
- and **Litterscheidt, W.**, heat of coking and total heat expenditure in coke ovens, B., 5.
- Baum, L. A. H.** See **Traxler, R. N.**
- Baum, R.** See **Griengl, F.**, and **Kreman, R.**
- Bauman, M.**, hempseed oil, B., 927.
- Baumann, C. A.**, and **Steenbock, H.**, vaginal smear method of determining vitamin-A, A., 99. Fat-soluble vitamins. XXXVI. Carotene and vitamin-A content of butter. XXXVII. Stability of carotene solutions, A., 986.
- Baumann, E.** See **Nagel, W.**
- Baumann, E. J.**, and **Marine, D.**, glycosuria in rabbits following injections of saline extract of anterior pituitary, A., 1210.
- and **Metzger, N.** [with **Baldanf, L. K.**], determination of iodine in blood, foods, and urine, A., 198.
- Sprinson, D. B.**, and **Metzger, N.**, relation of thyroid to the conversion of cyanides to thiocyanate, A., 1329.
- Baumann, M.**, discharges on indigo [in printing], B., 462.
- Baumann, O.**, aluminium as a cause of cancer, A., 738.
- See also **Nottbohm, F. E.**
- Baumann, W.**, and **Mecke, R.**, rotation-vibration spectrum of water vapour. II., A., 552.
- See also **Mecke, R.**
- Baumbach, H. H. von**, **Dünwald, H.**, and **Wagner, C.**, electrical conductivity of cupric oxide, A., 887.
- and **Wagner, C.**, electrical conductivity of zinc and cadmium oxides, A., 887.
- See also **Schwab, G. M.**
- Baumbach, H. L.**, ground-glass junctions, A., 1135.

- Baumberger, *J. P.*, apparatus for study of redox potential in biological systems, A., 1218.
- Jürgensen, *J. J.*, and Bardwell, *K.*, coupled redox potential of the lactate-enzyme-pyruvate system, A., 980.
- Baume, *G.*, and Gloriet, *A.*, protection of solid compounds, (P.), B., 735.
- Baumeister, *W.* See Kautsky, *H.*
- Baumgarten, *G.*, extraction of morphine from opium by the lime method, B., 524.
- Baumgartner, *H.* See Fischer, *Hans.*
- Bauminger, *B.* See Lieben, *F.*
- Baur, *C. H. vom.*, electric furnace and its products in the U.S.S.R., B., 512.
- Baur, *E.*, aminolysis of aspartic acid, A., 264. Inhibitors in reduction of vat dyes, A., 912. Stirred and granulated electrodes, B., 352.
- and Tobler, *J.*, [voltaic] cells with combustible [anode], B., 352.
- and Wunderly, *K.*, aminolysis of aspartic acid, A., 55. Hydrolysis of amino acids by aqueous extracts of bone charcoal, A., 940.
- Baur, *H.* See Vogel, *R.*
- Bausch, *H.* See Weldert, *R.*
- Bausch, *V.*, and Frenzel, *K.*, transparent foils of paper, fabric, webs, etc., (P.), B., 265.
- Baver, *L. D.*, use of the Trocmner balance for measuring the upper plastic limit of soils, B., 80.
- and Rhoades, *H. F.*, aggregate analysis as an aid in study of soil structure relationships, B., 201.
- See also Nichols, *M. L.*
- Bavio, *J. E.* See Deulofeu, *V.*
- Bawcutt, *P. J.* See Dunlop Rubber Co.
- Bawden, *A. T.*, and Dyche, *S. K.*, use of glycerol in iodometry, A., 1132.
- Bawn, *C. B. H.*, oxidation of carbonyl sulphide, A., 355.
- Baxter, *G. P.*, beaker for quantitative analysis, A., 586.
- and Alter, *C. M.*, at. wt. of lead from cyrtolite, A., 110. At. wt. of lead from Bedford cyrtolite, A., 550. Revision of the at. wt. of indium, A., 659. At. wt. of lead from Katanga pitchblende, A., 659, 882. At. wt. of less volatile potassium prepared by Hevesy, A., 994.
- Curie, (*Mme.*) Marie, Hönigschmid, *O.*, Lebeau, *P.*, and Meyer, *R. J.*, third report of the at. wt. commission of the International Union for Chemistry, A., 203.
- and MacNevin, *W. M.*, revision of at. wt. of potassium, A., 994.
- and Shafer, *W. E.*, revision of the at. wt. of arsenic; comparison of arsenic trichloride with iodine pentoxide, A., 659.
- Shafer, *W. E.*, Dorcas, *M. J.*, and Scripture, *E. W., jun.*, revision of the at. wt. of arsenic. I. Analysis of arsenic tribromide. II. Analysis of arsenic trichloride, A., 442.
- and Thomas, *J. S.*, at. wt. of caesium, A., 333. Revision of the at. wt. of thallium; analysis of thallos chloride, A., 882.
- Baxter, *H.*, inorganic constituents of mixed and parotid gland saliva activated by reflex stimulation in the dog, A., 1185.
- Baxter, *R. A.*, and Beckham, *L. J.*, diffusion as an aid in the analysis of gaseous paraffin hydrocarbon mixtures, A., 1314.
- Baxter, *W. B.*, utilisation of blast-furnace gas, B., 918.
- Bayard-Duclaux, (*Mme.*), measurement of resistance of rocks, A., 1267. Influence of absorbed water on electrical conductivity of rocks, A., 1267.
- Bayer, *G.*, and Elbel, *H.*, saponin nature of snake venom, A., 1185.
- Bayerische Akt.-Ges. für chemische & landwirtschaftlich-chemische Fabrikate, bleaching clays, (P.), B., 669.
- Bayerische Metallwerke Akt.-Ges., alloy for tools and working appliances, (P.), B., 311.
- Bayerl, *V.*, and Flood, *H.*, theory of nucleus formation, A., 211.
- See also Pincussen, *L.*
- Bayes, *A. W.*, stapling of cottons; use of a standard sheet for recording results for the "combined stapling test," B., 343.
- Bayfield, *E. G.*, report of Sub-Committee on the viscosity test for soft winter wheat flours, B., 1078.
- and Shipley, *V.*, soft winter wheat studies. I. Suitability of the A.A.C.C. basic baking procedure for determination of strength, B., 442.
- Bayle, *E.*, George, *H.*, and Maché, *A.*, [ink for] protection and authentication of articles [cheques, etc.], (P.), B., 978.
- Bayley, *C. H.*, slow-combustion gas pipette, A., 247.
- See also Cambron, *A.*
- Bayley, *P. L.*, dielectric losses in rock salt, A., 447.
- See also Thorne, *A. M.*
- Baylis, *J. R.*, specifications for powdered activated carbon. I. and II., B., 658. Odour and taste determinations [in water], B., 686.
- Baylis, *W. S.*, Belden, *D. S.*, and Filtrol Co. of California, decolorisation of [mineral] oils with acid-activated earth and water, (P.), B., 952.
- and Filtrol Co. of California, treatment [purification] of petroleum oil; reclaiming used lubricating oils, (P.), B., 52. Treatment of lubricating oils with an activated clay and water, (P.), B., 538. Manufacture of a superior [lubricating] oil, (P.), B., 538.
- Tietig, *C.*, and Filtrol Co. of California, fat-splitting adsorbent, (P.), B., 76.
- See also Kelley, *W.*
- Bayliss, *D. G.* See Bayliss, *J. H.*
- Bayliss, *J. H.*, Bayliss, *D. G.*, and Bayliss, *K.*, scrubbing, impregnating, sizing, starching, or other similar machines for treating fabrics with liquids, (P.), B., 1054.
- Bayliss, *K.* See Bayliss, *J. H.*
- Bayliss, *N. S.* See Gibson, *G. E.*
- Bayne, *C. D.*, and Standard Oil Development Co., eliminating water hazard in treating [hydrocarbon] oils, (P.), B., 854.
- Bazzocchi, *A.*, apparatus for washing and other treatment of artificial silk yarns, (P.), B., 504.
- Beach, *A. C. G.*, experiment bearing on Talbot's bands, A., 585.
- Beach, *N. F.* See Kodak, Ltd.
- Beal, *C. L.*, anode process for rubber articles and coatings, B., 641.
- See also Sheppard, *S. E.*
- Beal, *G. D.*, McGregor, *R. R.*, and Mellon Inst. of Industrial Research, carotting of fur, (P.), B., 701.
- and Szalkowski, *C. R.*, detection of acetone in chloroform, B., 500. Determination of chloroform, B., 764.
- Beal, *G. F.*, Anderson, *H. V.*, and Long, *J. S.*, drying oils. XVI. X-Ray study of natural and synthetic varnish resins, B., 30.
- Beale, *A. H.* See Aston, *J.*
- Beall, *D.*, and Biely, *J.*, activated ergosterol, A., 435.
- Beall, *H. W.* See Falconer, *J. G.*
- Beall, *I. N.*, rôle of oxygen in conversion of hydrocarbons, B., 659.
- and Beall, *J. C. W.*, conversion of oil and natural gas [into motor fuels, etc.], (P.), B., 377.
- Beall, *J. C. W.* See Beall, *I. N.*
- Beamish, *F. E.*, microbomb for determination of organic halogens, A., 1179.
- Bean, *E. L.* See Craig, *E. C.*
- Bean, *F. R.*, and Johnson, *J. R.*, derivatives of phenylboric acid, their preparation, and action on bacteria. II. Hydroxyphenylboric acids, A., 79.
- Bean, *P.*, faults in finished fabrics, B., 863.
- Bean, *R. D.*, smoke density meter, A., 139.
- Beanblossom, *W. S.*, and Hooker Electrochem. Co., thionyl chloride, (P.), B., 428.
- Beanland, *A. de M.*, and Evans, *E. J.*, magneto-optical dispersion of organic liquids in the ultra-violet region of the spectrum. V. *n*-Propyl propionate, isobutyl acetate, ethyl acetoacetate, and ethyl oxalate, A., 556.
- Beans, *H. T.* See Dingwall, *A.*
- Bear, *R. S.* See Spedding, *F. H.*
- Beard, *H. C.* See Parks, *L. R.*
- Beard, *H. H.*, relation between the excretion of creatinine-nitrogen and several body measurements, A., 857.
- Beard, *J. W.*, and Blalock, *A.*, intravenous injections; composition of the blood during continuous intestinal trauma when no fluid is injected and when fluid is injected continuously, A., 87.
- Wilson, *Harwell*, Weinstein, *B. M.*, and Blalock, *A.*, effects of hæmorrhage, trauma, histamine, and spinal anaesthesia on composition of blood when no fluids are injected and when fluids are introduced intravenously, A., 87.
- See also Blalock, *A.*
- Beard, *L. C.*, Shipp, *V. L.*, and Spelshouse, *W. E.*, standardisation of kauri-butanol test for paint and lacquer thinners, B., 1067.
- Beard, *P. J.*, and Munson, *L.*, nitrogen fixation in activated sludge, B., 254.
- Bearden, *J. A.*, wave-lengths of silver, molybdenum, copper, iron, and chromium  $K\alpha$  lines, A., 200. Radioactive contamination of ionisation chamber materials, A., 690.
- Beardsley, *A. P.*, Dolt, *M. L.*, and Calco Chem. Co., catalytic contact mass, (P.), B., 703.
- Beardsley, *E. W.*, and Petroleum Conversion Corp., conversion of hydrocarbon oils, (P.), B., 539.
- Sachs, *A. P.*, and Petroleum Conversion Corp., converting [hydrocarbon] oils and simultaneously recovering asphalt, (P.), B., 539.
- Beater, *B. E.*, phosphate determination [in sugar-cane juice] by the ceruleo-molybdate method, B., 600.
- Beath, *C. P.* See Western Electric Co.
- Beath, *O. A.*, Draize, *J. H.*, and Eppson, *H. F.*, arrow grass—chemical and physiological considerations, A., 1216.
- Beattie, *J. A.* See Gillespie, *L. J.*

- Beattie, R. W., and Whitmore, F. C., dichloronaphthalenes and related intermediates, A., 601. Interconversion of arylmercuric halides and mercury diaryls. II., A., 619.
- Beau, M., action of rennin on caseinogen, A., 314. Theory of polymerisation of caseinogen, A., 519.
- Beaumont, A. B., soil nitrates as affected by addition of fertilisers and soil amendments, B., 82. Toxicity of ammonium compounds for tobacco, B., 85.
- and Crooks, G. C., influence of a mulch on soil nitrates, B., 933.
- and Karns, G. M., effect of an iodide fertiliser on iodine content of a food plant, B., 164.
- Stitt, R. E., and Snell, R. S., factors affecting the palatability of pasture plants, B., 523.
- Beaumont, C., moulding of [hollow] plastic materials, (P.), B., 158.
- Beaune, A. See Lévy, (Mlle.) Jeanne.
- Beauvalet, H., digestion in selachians, A., 750.
- Beauverie, J., and Monchal, S., life of plants in a closed atmosphere, A., 101.
- Beaver, D. J., and Gen. Atlas Carbon Co., carbon black, (P.), B., 1044.
- Bebb, H. T., and Canton Stamping & Enameling Co., continuous manufacture of enamel ware, (P.), B., 829.
- Beber, M. See Grodinsky, M.
- Bebeschin, K. V. See Smorodincev, I. A.
- Beccari, B., action and therapeutical importance of water-soluble derivatives of vitamin-D, A., 1088. Biological detection of vitamin-D, A., 1089.
- Bécharde, C., use of bimetallic anodes in electrolytic synthesis of alloys, B., 673.
- Bechard, R. M., new test-paper for controlling tempering [in sugar factories], B., 601.
- and Dupont, L., factors governing yield of jelly massachusetts, B., 600.
- Becher, E., and Herrmann, Elfriede, free and combined amino-nitrogen in deproteinised blood and tissue under normal and pathological conditions. I. and II., A., 1315.
- Becher, H. L. See Landt, G.
- Bechhold, H., and Schlesinger, M., influence of diet in adsorptive disinfection with "adsorgan" and "silargel," A., 1324.
- Bechtel, T. B., electric furnace, (P.), B., 636.
- Beck, A. See Clément, L.
- Beck, Adolf, castings of magnesium and magnesium alloys in permanent moulds, (P.), B., 474.
- Beck, F. J., jun., and McKeehan, L. W., mono-crystal Barkhausen effects in rotating fields, A., 216.
- Beck, G., does the negative energy spectrum influence nuclear phenomena? A., 884. Energy levels of radium-C', A., 994. Energy law and reversibility of elementary processes, A., 995.
- and Sitte, K., theory of  $\beta$ -ray disintegration, A., 1224.
- Beck, H., dielectric losses of insulating oils at very high frequencies, A., 1103.
- Beck, H. H. See Supplee, G. C.
- Beck, K., and Utrack, H., Arnold's reaction between sodium nitroprusside and protein and denaturation of meat protein by concentrated urea, B., 603.
- Beck, L., liver-glycogen content. V. Glycogen content of liver in meningitis and brain injuries, A., 973.
- Beck, L. V., intracellular oxidation-reduction studies. VI. Effects of penetrating and non-penetrating acids and bases on the oxidation-reduction phenomena in starfish eggs, A., 1324.
- See also Chambers, R.
- Beck, P. See Herlinger, E.
- Beck, W., electrolytic corrosion in gas mains, B., 577. Behaviour of new rust-protecting materials under electrical, thermal, and vibrational conditions, B., 969.
- and Hessert, F. von, "flow" of paints, B., 478.
- Bečka, J., alteration of the blood-[H<sup>+</sup>] and mineral metabolism during narcosis. I. Calcium and phosphorus in blood during narcosis. II. Blood-[H<sup>+</sup>], A., 744, 977.
- Beckel, A., determination of degree of concentration of tinned milk, B., 1079. Application of statistical methods to food chemistry, B., 1083.
- Becker, A., and Schaper, I., temperature variation of the total current-carrying elements in air, A., 4.
- Becker, August, radium solutions, A., 882.
- Becker, A. E., and Standard Oil Development Co., lubricating composition containing sulphonates, (P.), B., 775.
- Becker, B. C. See Van Arendonk, A. M.
- Becker, Erich, settling of pigments in varnishes, B., 399.
- Becker, Erich (Darmstadt). See Schöpf, C.
- Becker, Erich (Kladno), nickel anodes, B., 673.
- Becker, Eugen, determination of potash and phosphate requirements of soils, B., 162.
- Becker, F., and Hunold, G. A., determination of stabilisers in smokeless powders, B., 1086.
- See also Schmidt, A.
- Becker, F. (Darmstadt). See Berl, E.
- Becker, F. (Wien). See Gangl, J.
- Becker, G. See Valentiner, S.
- Becker, Johannes. See Sommer, H.
- Becker, Joseph, and Koppers Co., method of operating a coke-oven battery, (P.), B., 534. Coking retort oven, (P.), B., 534, 1043. Distillation of tar, (P.), B., 739.
- and Semet-Solvay Eng. Corp., flue system for retort coke ovens, (P.), B., 738.
- See also Koppers Co. of Delaware.
- Becker, J. A. See Brattain, W. H., and Sears, R. W.
- Becker, K., physical properties of high-melting compounds, A., 343.
- See also Agte, C.
- Becker, M. See Dierks, K., and Schnitz, F. N.
- Becker, R., and Freundlich, H. W. F., Bitter's striations with an iron-silicon plate, A., 340.
- Becker, Richard, elastic forces and magnetic properties, A., 14.
- See also Eucken, A.
- Becker, R. B. See Arnold, P. T. D., and Neal, W. M.
- Becker, Walter. See Stollé, R.
- Becker, Wilhelm. See Englert, O., and Gewerkschaft Gevenich.
- Becker, W. W., volumetric determination of nitroglycerol and of nitroglycerol and dinitrotoluene in admixture, B., 573.
- Becker-Chemische Fabrik, F. See under Englert, O.
- Beckers, M., heats of combustion, A., 353.
- Becket, F. M. See Electro Metallurg. Co.
- Beckett, E. G. See Imperial Chem. Industries.
- Beckham, L. J. See Baxter, R. A.
- Beckley, V. A., and McNaughtan, F., distribution of nitrates in the soil and root development in coffee, B., 727.
- Beckmann, C. See Geffeken, W.
- Beckmann, H. See Grün, R.
- Beckmann, S. See Komppa, G.
- Beckstrom, R. C., and Barb, C. F., viscosimeter, (P.), B., 4.
- Beckwith, H. H. See Woodruff, F. O.
- Beckwith, T. D., and Moser, J. R., germicidal effectiveness of chlorine, bromine, and iodine, B., 414.
- See also Bovard, P. F.
- Becraft, F. W., and Dorr Co., Inc., multiplex rotary-drum filter, (P.), B., 529.
- Becze, G. See Török, G.
- Bedaux, G. See Le Gavrian, P.
- Bedel, C., temperature coefficient of resistivity of silicon and a [new] thermoelectric phenomenon of unipolar substances, A., 9. Magnetic susceptibility of silicon-rich ferro-silicons, A., 217. Density of ferrosilicons, B., 151.
- Bedford, C. S., coloration of cellulose ester textiles, (P.), B., 1053.
- Bedford, C. W., and Goodrich Co., B. F., rubber composition and method of preserving rubber, (P.), B., 319.
- Bedford, M. H., Keller, W. H., and Gabbard, J. L.; effect of  $p_{H_2}$  on flocculation values of [ferric] chromic, and aluminium oxide sols, A., 1243.
- Bedi-i-Schakir. See Scheunert, A.
- Bednova, M. S. See Krieger, E. A.
- Bedes, P., and Ruyer, A., reactions of  $\Delta^{1,3}$ -cyclohexadiene, A., 56. Oxides and polyalcohols derived from  $\Delta^{1,3}$ -cyclohexadiene, A., 500.
- Bedreag, C. G., physical system of the elements, A., 1225.
- Bedwell, W. L. See Bassett, H.
- Bedworth, R. E. See Westinghouse Electric & Manufg. Co.
- Beebe, D. S. See Eisenstein, J.
- Beech, R. H., and Davenport, H. A., Bielschovsky staining technique; factors influencing its specificity for nerve fibres, A., 297.
- Beech, W. A. See Mines, H. M.
- Beecher, B. K. See Lynn, G.
- Beck, O., ionisation of inert gases by slow alkali ions, A., 1223.
- Beedham, C. C., effects of trade effluents on sewage purification, B., 734.
- Beek, F. van. See De Waard, S.
- Beekley, J. S. See Du Pont de Nemours & Co., E. I.
- Beekman, E. McK. See Niederl, J. B.
- Beeley, F., sulphur-dusting experiments [on rubber plantations], B., 202. Fur dyeing, B., 745.
- Beeman, N. See Holmes, H. N.
- Beet, A. E., Kjeldahl process; comparison between coal and other nitrogenous substances, B., 132.
- Begeman, H. G., muffle kiln, (P.), B., 607.
- Begerow, W. See Berl, E.
- Béguin, C., reducing sugar of the flower of *Matricaria chamomilla*, L., A., 544.
- Behaghel, O., and Seibert, H., arylselenium halides. II. and III., A., 619, 842.
- Behimer, O., and Texas Co., treating hydrocarbon oils, (P.), B., 456. Gasoline, (P.), B., 500. Treatment of hydrocarbon oils, (P.), B., 854.

- Behmel, G. See John, Hanns.
- Behnisch, R. See Slotta, K. H.
- Béhounek, F., measurement of radium in minerals of small uranium content by the method of  $\gamma$ -rays, A., 110.
- Behr, G. See Rippel, A.
- Behr-Manning Corporation. See Schaadt, E. C.
- Behre, A., commercial descriptions of fishes and crustacea and their methods of preparation, B., 41. Definitions of meat salad [and herring salad] and mayonnaise, B., 1081.
- Behre, J., measurement of plasticity in the rubber industry. II., B., 32. Vulcanisation of rubber, B., 837.
- Behrend, O. and Rubber Service Labs. Co., vulcanised rubber, (P.), B., 801. Vulcanisation of rubber, (P.), B., 931.
- Behrendt, G., and Wentrup, H., thermal investigation of calcium silicophosphates, A., 1120.
- Behrens, B., and Seelkopf, K., pharmacology of metaphosphoric acids, A., 424. and Wajzer, J., dissociation and local irritating effects of calcium salts, A., 1079.
- Behrens, M., and Asher, T., isolated cell- and tissue-constituents. II. Haemoderin of horse-spleen, A., 1184.
- Behrens, W. V., manurial action of potash salts used alone and in admixture, B., 802.
- Behrman, A. S., hydrobromic acid, (P.), B., 546. Activated carbon in industrial water purification, B., 686. and Gustafson, H., behaviour of activated carbon with metallic water-purification equipment, B., 254. and Permutit Co., preparation of base-exchange material, (P.), B., 465.
- Beier, H. G., and Brintzinger, H., air thermostat for solubility determinations, A., 925. See also Brintzinger, H.
- Beiersdorf & Co. Akt.-Ges., P., stable compounds of the primula saponin, (P.), B., 412.
- Bein, K. See Kuhn, W.
- Beinhart, E. G., control of the tobacco flea beetle (*Epitrix parvulus*), B., 245.
- Beintema, J. See Jaeger, F. M.
- Beitker, carbon monoxide poisoning, with special reference to chronic injury to health, A., 186.
- Beischer, D. See Grube, G.
- Beiser, A., and Pringsheim, H., determination of the mol. wt. of carbohydrates, A., 1144. See also Pringsheim, H.
- Beiser, W. See Seheibler, H.
- Beitter, F., removal of phosphorus, sulphur, and oxygen in production of high-quality steel in the open-hearth furnace, B., 789.
- Bekk, J., chemico-technological problems in the printing industry, B., 276.
- Bekker, J. G., mineral metabolism. XXIII. Phosphorus and iodine supplements in field experiments with sheep, A., 530. See also Rimington, C.
- Belani, E., Karlsbad powder ["Carlonit"] bleaching earth in the oil and fat industry, B., 156. Colloidal graphite [lubricating] oils and greases, B., 850.
- Belavoine, P., determination of water-soluble extract of coffee and coffee substitutes, B., 364.
- Belavsky, E., defects in dried [raw] goatskins, B., 980.
- Belcher, D. See MacInnes, D. A.
- Belchetz, L., thermal catalytic decomposition of methane, A., 1270.
- Beldam, G. W., [elastic] bricks, slabs, sheets, etc. [for roads, etc.], (P.), B., 200. Artificial wood articles or materials, (P.), B., 348.
- Beldam, W. R., filtering or straining apparatus, (P.), B., 816. See also Auto-Klean Strainers, Ltd.
- Belden, D. S., and Filtrol Co. of California, safely distilling and decolorising mineral oils, (P.), B., 952. See also Baylis, W. S.
- Belenki, M. S., Jousé, W. P., and Kovaleva, L. J., heat of wetting of metallised carbon, A., 775.
- Belgrave, W. N. C., experiments with padi in Malaya, 1931—32. II. Padi manuring. III. Experimental error of field trials. IV. Experimental padi tanks, B., 244. and Lambourne, J., manurial experiments on coconuts and oil palms, B., 644.
- Beliaev, N., tobacco-seed oil, B., 753.
- Beliankin, D. S. See Kurnakov, N. S.
- Belinfante, A. H. See Jorissen, W. P.
- Belitzer, W. A., action of toluene on fermentation by yeast, A., 1205.
- Bell, A. See Youmans, J. B.
- Bell, A. C. See Allen, C. F. H.
- Bell, D. J., wood cellulose. IV. "Resistant portion" of Thiriana pulp, A., 328.
- Bell, F., bromination of  $\beta$ -naphthylamine, A., 58. Nitration of  $\alpha$ - and  $\beta$ -naphthols, A., 499. Mechanism of Hofmann, Curtius, and diazo-reactions, A., 945. and Cohen, R., nitration of disulphonanilides, A., 1155. and Sugden, S., formula of hypophosphoric acid, A., 212.
- Bell, I. R. See Gelfan, S.
- Bell, J., emission of electrons from tungsten and molybdenum under the action of soft X-rays from copper, A., 1098.
- Bell, J. H. B., effects of beating on fibrous cellulose, B., 501.
- Bell, K. E., and Lawrence Leather Co., A. C., dryer, (P.), B., 768.
- Bell, K. G. See Rosenstein, L.
- Bell, M. E., cystine and nephrotoxicity, A., 1071. High-protein diets and acid-base mechanism, A., 1325. Gregory, E., and Drummond, J. C., alleged toxic action of cod-liver oil and concentrates of vitamin-A, A., 987.
- Bell, R. A. See Vickers, A. E. J.
- Bell, R. P., heat of solution of water vapour in various solvents, A., 127. Titration method for determination of water, A., 135. Application of quantum mechanics to chemical kinetics, A., 231.
- Bell, R. W. See Whittier, E. O.
- Bell, T. P., and Thermophor Manufg. Co., thermophoric mixture, (P.), B., 48, 768.
- Bell Bros. (Manchester, 1927), Ltd., and Benson, C. G., apparatus for aerating liquids, (P.), B., 97.
- Benson, C. G., and Mitchell, A. M., apparatus for mixing gases with liquids, (P.), B., 993.
- Bell Telephone Laboratories, Inc. See Christopher, A. J., Cioffi, P. P., Harris, J. E., Kemp, A. R., Lathrop, H., Legg, V. E., Owens, C. D., Parsons, I. H., Siegmund, H. O., and White, J. H.
- Belladen, L., and Piazza, G., new indicators for determination of halogens by Fajans' method, A., 41.
- Bellais, M., ships' compositions containing rubber, B., 595.
- Bellak, R., iron alloy particularly for tools working in heat, (P.), B., 793.
- Bellamy, H. T., porous [structural] materials, (P.), B., 539.
- Bellerby, C. W., endocrine factors concerned in the control of the ovarian cycle. I. *Xenopus laevis* as a test animal, A., 869.
- Bellet, E. M., decomposition of glycol diacetate by alcohol in feebly alkaline medium, A., 696.
- Bellis, A. E., electric furnace [for salt-bath heat treatment of metals], (P.), B., 512.
- Bellows, J., See Adams, F. W.
- Beloglazov, K. F. See Aseev, N. P.
- Belokopytoff, A. J., and Mayehoff, K. L., dyeing of textile materials, (P.), B., 225.
- Belopolski, A. P., and Aleksandrov, N. P., solubility of ammonium and sodium sulphates in aqueous ammonia solutions, A., 220. Equilibria of the quaternary system  $\text{Na}_2\text{SO}_4\text{-(NH}_4)_2\text{SO}_4\text{-NH}_3\text{-H}_2\text{O}$ , A., 907. See also Volkovitsch, S. I.
- Belousov, A. M., wash-bottle for gases, A., 801. Instrument for facilitating measurement of the level of the meniscus of liquids, A., 801. Capillary electrometer stand, A., 801.
- Belov, V. See Schorigin, P.
- Belov, V. N., nature of racemates, A., 698.
- Belovodski, V. V. See Budnikov, P. P.
- Belozerskaja, R. G. See Borodulin, M. V.
- Belval, H. See Colin, H.
- Belvousseau, M. A. See Bobko, E. V.
- Bém, L., regularities in composition of cows' milk and their practical significance, B., 1031.
- Bemberg Akt.-Ges., J. P., apparatus for making artificial films or skins of cellulose and cellulose derivatives, (P.), B., 186. Cellulose products [continuous filaments, films, etc.], (P.), B., 382. [Matt] artificial structures from cuprammonium cellulose solutions, (P.), B., 664. Skins from cellulose solutions, (P.), B., 860.
- Bemis Industries, Inc. See Litchfield, J. W.
- Bemmann, R. See Berl, E.
- Benade, J. M., secondary radiation produced by cosmic rays, A., 4.
- Benaglia, A. See Co Tui, F. W.
- Benaglia, G. See Lonza Elektrizitätswerke & Chem. Fabr. A.-G.
- Benary, E., aminomethylene derivatives containing arsenic and antimony from hydroxymethylene compounds, A., 79. 4-Acyl derivatives of antipyrine, A., 837. Substituted quinoline-4-carboxylic acids, A., 1308.
- Benazet, P. See Michel, A.
- Bencko, V. See Dubský, J. V.
- Bencowitz, I. See Bacon, R. F.
- Benda, A. See Quadrát, O.
- Benda, L., relation between chemical constitution and action of chemotherapeutic agents, A., 312.
- Benda, V., internal ballistics of smokeless powders as a liaison factor between manufacture and consumption, B., 989.
- Bender, J. A. See Hayman, J. M., jun.
- Bender, M., ionisation of solid dielectrics on X-irradiation, A., 332.
- Bender, R. See Grassmann, W., and Zechmeister, L.

- Bender, R. C., and Supplee, G. C., vitamin- $B_1$  and  $-B_2$  contents of dry skimmed milk and dry whey, A., 324. Vitamin-A content of milk irradiated by various carbon arcs, A., 1211.
- Benderskaja, A. S. See Burkser, E. S.
- Bendien, S. G. T., removal of albuminous substances from therapeutic sera and other liquids, (P.), B., 940. Therapeutic preparations, (P.), B., 940.
- Bendien, W. M., and Snapper, I., union of colloids. I. Supposed albumin-globulin compound in serum; state of combination of calcium in serum. II. Binding of bile pigment, lipochrome, cholesterol, lecithin, and the anti-bodies of syphilis, A., 623, 735.
- Bendig, M., and Hirschmüller, H., determination of manganese, iron, and titanium by B. Lange's photo-electric colorimeter, A., 365.
- Bendix, F., use of aluminium alloys for construction of stills and rectifying apparatus for alcohol, B., 431.
- Bendix Aviation Corporation. See Lorenzen, C.
- Bene & Sons, Inc., J. See Kratky, A.
- Benedetti-Pichler, A. A., quantitative mineral micro-analysis, A., 1260.
- and Schneider, F., quantitative isolation of ether from dilute solutions, A., 931.
- Benedicks, C., mechanism of superconductivity, A., 667. Superconductivity of alloys from a phase theory viewpoint, A., 1239.
- See also Alber, H., and Trejé, R.
- Benedict, E. M. See Atchley, D. W., and Leeb, R. F.
- Benedict, F. G., and Fox, E. L., basal metabolism of small birds, A., 1193.
- Landauer, W., and Fox, E. L., physiology of normal and Frizzle fowl: basal metabolism, A., 1073.
- and Meyer, M. H., basal metabolism of American-born Chinese girls, A., 629.
- Benedict, O. See Brigl, P.
- Benedict, S. R., and Gottschall, G., analysis of whole blood. IV. Glutathione, A., 409.
- Benedict, W. S. See Harris, L.
- Benesch, E., rapid determination of sodium hydrosulphide in sodium sulphide, etc., B., 701.
- Beneschovsky, H. See Barrenscheen, H. K.
- Benetato, G. See Meyerhof, O.
- Bengen, M. F., detection of pasteurisation [of milk] by the holding method, B., 1079.
- Bengough, G. D., corrosion of metals in salt solutions and sea-water, B., 832.
- and Whitby, L., magnesium alloy protection by selenium and other coating processes. II., B., 970.
- and Wormwell, F., theory of metallic corrosion in the light of quantitative measurements. VI. Distribution of corrosion, A., 679.
- Bengston, H., and Aluminium Colors, Inc., method of [oxide] coating [aluminium anodically], (P.), B., 874.
- and Pettit, R. E., alumilite process for decorating and protecting aluminium products, B., 922.
- Bengtsson, B. E., structural difference between sitosterol and cholesterol, A., 500.
- Bengtsson, K., influence of oxygen on fermentation, B., 983.
- Bengtsson, N., nitrification of stall manure in arable soil. IX. Determination of potassium nitrate in soil and manure, B., 482.
- See also Barthel, C.
- Benhamou, E., and Gille, R., variations in blood-cholesterol on injection of adrenalin, A., 754.
- Benin, G. S., storage of dried [sugar-beet] cossettes, B., 600.
- Maximov, A. A., and Saenko, J. I., extraction of juice from dry cossettes by the press method, B., 120.
- See also Mintz, I. B.
- Benjamin, F. H., extraction of organisms from organic or inorganic substances, (P.), B., 890.
- Benjamin, H. R., forms of the calcium and inorganic phosphorus in human and animal sera. II. Nature and significance of the filterable, adsorbable calcium-phosphorus complex, A., 521.
- and Hess, A. F., forms of the calcium and inorganic phosphorus in human and animal sera. I. Normal, rachitic, hypercalcæmic, and other conditions, A., 521.
- See also Hess, A. F.
- Benjamin, L. C. See Yagliou, C. P.
- Benjamin, L. P. See Hulbert, H. W.
- Benjamin, M., and Rooksby, H. P., emission from oxide-coated cathodes. I. and II., A., 446, 887.
- See also M.-O. Valve Co.
- Benjamin, V. C., device for producing and treating thin liquid films, (P.), B., 689.
- Benjamin Electric, Ltd. See Molyneux-Ffennell, K. S.
- Benn, C. H. See Benn, C. L.
- Benn, C. H. L. See Benn, C. L.
- Benn, C. L., Benn, C. H., and Benn, C. H. L., tar-distillation and similar stills, (P.), B., 258.
- Benne, E. J. See Perkins, A. T.
- Bennek, H. See Houdremont, E.
- Bennekou, I. See Schou, S. A.
- Benner, H. P., Morrell, J. C., and Universal Oil Products Co., apparatus for producing suspensions, (P.), B., 3.
- See also Egloff, G.
- Benner, R. C., Easter, G. J., Hawke, C. E., and Carborundum Co., electric furnace and method of operating same, (P.), B., 433.
- Bennet-Clark, T. A., rôle of organic acids in plant metabolism. I—III., A., 758, 1092, 1341.
- Bennett, A. H., vitamin-C in *Citrus* juices, A., 1090.
- Bennett, C. T., and Campbell, N. R., determination of iron, A., 1263.
- Bennett, C. W. See Mack, E. L.
- Bennett, E. See Archibald, J. G.
- Bennett, G. A. See Bauer, W.
- Bennett, G. M., influence of nuclear halogens on aromatic side-chain reactivity, A., 1151.
- See also Baddeley, G.
- Bennett, H. T., lubricant, (P.), B., 775.
- Story, Le R. G., and Mid-Continent Petroleum Corp., stable low-pour-point lubricating oils, (P.), B., 903.
- Bennett, O. G., and Catalyst Research Corp., hydrogenation process [for fatty oils] and catalyst therefor, (P.), B., 798.
- Catalyst Research Corp., and Frazer, J. W. C., metallic catalyst, (P.), B., 925.
- Bennett, R. D., Stearns, J. C., and Overbeck, W. P., portable double Geiger counter, A., 926.
- Bennett, W. G. See Internat. Yeast Co.
- Bennett, W. H., behaviour of hydrogen electrode in chromic-chromous solutions and solubility product of chromous hydroxide, A., 128.
- Bennett-Mack Corporation. See Mack, E. L.
- Bennewitz, K., and Neumann, W., mechanism of hydrogen-oxygen electrode, A., 572.
- Bennhold, H., separating different disperse systems by cataphoresis, A., 349.
- Bennhold, W., water-gas generator, (P.), B., 660.
- Benni, B., citric acid content of cerebrospinal fluid in man, A., 303.
- Bennie, H. D. See Mitchell, W. B.
- Benningshoff, W. M. See Bartow, E.
- Bennion, E. B., storage of flour, B., 842.
- Benoit, G. See Fournneau, E.
- Bensing, Le R. P., and Lebanon Steel Foundry, mould for high-temperature castings, (P.), B., 795.
- Benson, C. See Cranston, J. A.
- Benson, C. G. See Bell Bros. (Manchester, 1927), Ltd.
- Benson, H. K., chemical studies of sulphite waste liquor pollution of sea-water, B., 46.
- Utilisation of sulphite[cellulose] waste liquor, B., 56. Manufacture of wood pulp in multiple stages, (P.), B., 912.
- Benson, W. J., and Desamais, L. M., copper-treating furnace, (P.), B., 633.
- Bent, F. A., and Shell Development Co., removal of nitric oxide from [coke-oven] gases, (P.), B., 693.
- Bent, H. E., are liquid sodium amalgams colloidal? A., 561.
- and Gillilan, E. S., galvanic cells containing potassium triphenylmethyl, A., 231. Activity of potassium in dilute potassium amalgams, A., 1245.
- Bent, L. N., and Hercules Powder Co., extraction of resinous material from plant tissue, (P.), B., 721.
- Recovery of rosin from rosin-containing soap produced in manufacture of paper pulp from rosin-containing wood, (P.), B., 721.
- Bentley, J. B. See Sutton, L. E.
- Benvegnin, L., and Capt, E., analysis and composition of concentrated grape juice, B., 364.
- Benz, F. See Karrer, P.
- Benz, G., study of edible oils, and detection and determination of arachis oil in sesame oil, B., 28.
- Benz, H. See Mohler, H.
- Beran, C. F., and Celanese Corp. of America, heat exchanger, (P.), B., 688.
- See also Celanese Corp. of America.
- Beran, F., effect of hydrogen cyanide on fruit, B., 1081.
- See also Janke, A.
- Beránek, Z. See Šimek, B. G.
- Berchem, H. See Kühl, Hans.
- Berchet, G. J., and Carothers, W. H., acetylene polymerides and their derivatives. XI.  $\beta\gamma$ -Dichloro- and  $\alpha\beta$ -trichloro- $\Delta^{\alpha\gamma}$ -butadienes, A., 694.
- See also Carothers, W. H.
- Berconsky, I., and Rossignoli, J., hyper-ventilation and acid-base equilibrium in pregnancy, A., 1191.
- Berczeller, L., treatment of soya beans, (P.), B., 651.
- Berek, M., and Strieder, F., complex indicatrices of weakly absorbing rhombic minerals, A., 1109.

- Berenblum, I., stable suspension of dibenzanthracene in water, A., 123.
- Berend, N., enzymic dehydrogenation of fat, A., 747.
- Berenguer, A., cumin oil, B., 845.
- Beresford, H. L. See N.P. Development Synd.
- Beretta, A. See Gallotti, M.
- Berg, B. N. See Zucker, T. F.
- Berg, C. J. See Ionic Alkaline Batteries.
- Berg, C. P., resolution of *d*-tryptophan, A., 513. Kynurenic acid from tryptophan derivatives, A., 742.
- Berg, H., brick-red form of zinc oxide, A., 239.
- Berg, K., influence of water used in precipitation of lead chromes, B., 436.
- Berg, P., wine for manufacture of wine vinegar, B., 39. Sugar content of fruit syrup, B., 90. Detection of methyl alcohol in spirit preparations. I., B., 91.
- and Schmechel, S., determination of tartaric acid in wine, B., 39. Detection of arsenic in wine and [other] fruit beverages, B., 441.
- Berg, P. P., and Pshonik, M. S., desulphurising cast iron with manganese, B., 22.
- Berg, Ragnar, silicic acid content of bread, A., 105.
- Berg, Richard, and Keil, W., germanium and gallium from germanite. II., A., 134. See also Goroncy, C.
- Berg, W., extinction of iodine fluorescence by magnetic fields and foreign gases, A., 2.
- Berge, K. See Krauss, F.
- Bergel, F., and Bolz, K., autoxidation of amino-acid derivatives. I. and II., A., 494, 1148.
- and Wagner, Richard, solanidine and solanthrene, A., 1061.
- Bergell, C., direct determination of calcium soaps in fats, B., 753.
- Bergen, L. A. van, cohesion of artificial silk fibres in relation to their structure, B., 300.
- See also Bredée, H. L.
- Berger, E. (Basle), and Erlenmeyer, H., specific union of precipitins and chemospecific antigens *in vivo* by injections of simply constituted substances, A., 175. Relationship between structure of antigen and specificity of antibody. VI. Relation between mol. wt. of haptens and their affinity for anti-bodies, A., 1066.
- and Scholer, H., specificity of antibodies towards lipins; sterols, A., 411.
- See also Erlenmeyer, H.
- Berger, Edwin, theory of glass formation and the glassy state, A., 115.
- Berger, G. (Wageningen), dipole moment and association, A., 1000.
- Berger, Gerhard. See Pendl, F.
- Berger, R., lithographic processes and materials, (P.), B., 879.
- Bergh, E. M., control for evaporating apparatus, (P.), B., 96.
- Berghausen, A., and Berghausen Chem. Co., E., foam stabiliser for fire extinguishers, (P.), B., 48.
- Berghausen Chemical Co., E. See Berghausen, A.
- Bergius, F., Koch, F., Faerber, E., and Holzhydrolyse A.-G., consolidated lignin, (P.), B., 824.
- Bergkampff, E. S. von, normal potential and heat of solution of gallium, A., 29. X-Ray spectrograph for micro-analysis, A., 139. Analytical behaviour of gallium, A., 365.
- Berglund, N. See Edin, H.
- Bergman, D. J., and Universal Oil Products Co., treatment of hydrocarbon oils, (P.), B., 854.
- Bergman, G. G., composition of insects during metamorphosis, A., 968.
- Bergman, H. C. See MacKay, E. M.
- Bergman, T. V., and Svedberg, H. A., treating cream to increase its viscosity, (P.), B., 604.
- Bergmann, A. See Guertler, W.
- Bergmann, E., dehydrogenation of cholesterol, A., 1047.
- and Bondi, A., modes of reaction of phosphorus pentachloride. III. Action on derivatives of acetylene. IV. Action of ethylenes, A., 290.
- and Corte, H., double linkings. V. Thermochromic ethylenes, A., 165.
- and Hillemann, H., 3'-methyl-1:2-cyclopentenophenanthrene, A., 1154.
- Hoffmann, Helmut, and Meyer, Hermann, synthetical experiments in the tetraphenylallene series, A., 66.
- Hoffmann, Helmut, and Winter, D., fluorenes, A., 152.
- and Polányi, M., auto-racemisation and velocity of electrolytic dissociation, A., 815.
- Polányi, M., and Szabo, A., mechanism of simple substitution processes and Walden inversion. I., A., 574.
- and Rosenthal, W., alkylation of azomethine compounds, A., 165.
- and Schreiber, W., peculiar bromination reaction, A., 159. Action of lithium on tolane. III., A., 268.
- and Schütz, W., dipole moment of compounds with a cumulated unsaturated system, A., 210. Dipole moments of derivatives of ethylene oxide, A., 210. Dipole moments of organometallic compounds, A., 210.
- and Ukai, T., sodium phenylstyrylmethyl, A., 152.
- Winter, D., and Schreiber, W., double linking. VI. Allyl grouping in arylated olefines, A., 268.
- See also Schlenk, W.
- Bergmann, L., optical proof of superoscillations of a quartz crystal by the method of Debye and Sears, and its application to the determination of the velocity of sound in liquids, A., 1266.
- Bergmann, M., kinetics and structural chemistry of the enzymic hydrolysis of proteins, A., 94. Contributions of synthesis to the investigation of proteins and their enzymes, A., 172. New syntheses and enzyme studies relating to proteins, A., 636.
- and Föhr, F., action of pancreatin on gelatin surfaces. II., A., 1203.
- Hausam, W., and Liebscher, E., so-called "rope damage" [on raw skins] and the question of "stippen," B., 240. Rapid detection of follicular scabs in unhaird hide, B., 320.
- and Maehemer, H., transformation of glucals into  $\gamma$ -keto-acids, A., 937.
- and Seligsberger, L., salting of skins with soda-salt. II., B., 320.
- and Zervas, L., isoglutamine, A., 1281.
- Zervas, L., and Greenstein, J. P., syntheses of peptides of *d*-lysine; *d*-lysyl-*d*-glutamic acid and *l*-histidine, A., 55.
- Zervas, L., and Salzmann, L., synthesis of *l*-asparagine from *l*-glutamine, A., 1149.
- Bergmann, M., Zervas, L., and Schleieh, H., proteolytic enzymes. II. Mode of union of proline in gelatin, A., 94. Mode of combination of proline in gelatin and collagen, A., 292.
- Zervas, L., Schleieh, H., and Leinert, F., proteolytic enzymes: behaviour of proline peptides, A., 94.
- Bergmann, O. See Schlenk, W.
- Bergmann, W., and Johnson, T. B., pyrimidines. CXXXII. Synthesis of thymine. CXXXVII. Synthesis of 5-acetyluracil, A., 616, 1307.
- Bergquist, C., and Internat. Patents Development Co., thin-boiling starch, (P.), B., 808.
- Bergstedt, J. See Alber, H.
- Bergstrom, F. W. See Ogg, R. A., jun., and Wood, D., jun.
- Berkeley, C., oxidase of the crystalline style, A., 297. Oxidase and dehydrogenase systems of the crystalline style, A., 1201.
- Berkeley, (Earl of), empirical equation for calculating osmotic pressures, A., 901.
- Berkesy, L., and Gönczi, K., storage of halogens in hens' eggs and therapeutic application of halogenised eggs. I., A., 979.
- Berkmann, N. See Kronmann, E.
- Berkner, F., and Schlimm, W., effect of quantity and form of potash applications on quantity and quality of potato varieties rich in starch, on chemical composition, food and seed values of the tubers, B., 360. Changes in valuable constituents of potato tubers during winter storage in relation to yield, nature, and amount of potash application and the quantity of nitrogenous fertiliser used in the previous year. II., B., 484.
- Berkson, J. See Higgins, G. M., and Vansant, F. R.
- Berl, E., cellulose as source of coal and mineral oil, A., 484. Highly acetylated cellulose acetates, (P.), B., 14. Chardonnet or nitro-silk, B., 102. Separation of acetic anhydride from admixture with acetic acid and water, (P.), B., 139. Electrodes for carrying out electrochemical processes, and processes of electrolysis employing the same, (P.), B., 396.
- and Barth, K., explosion limits and ensurment of safety in the propagation of gas explosions, A., 356.
- Becker, F., and Begerow, W., lead chamber process. III. Synthesis of nitrosulphuric acid from silver hydrogen sulphate and nitrosyl bromide, A., 241.
- and Bemann, R., action of hydrogen on wood charcoal and activated carbon, and methane synthesis, A., 142.
- and Biebesheimer, H., origin of petroleum. I., A., 929.
- and Dienst, W., origin of petroleum. II., A., 929. Cracking process [for oils], B., 900.
- and Heffer, O., re-nitration and fractionation of cellulose nitrates, B., 541.
- Hillebrandt, H., and Winnacker, K., lead chamber process. V. Mechanism of transference of oxygen to sulphur dioxide through nitrosylsulphuric acid, A., 1258.
- and Hinkel, H., effect of alkalis and salt solutions on materials used for boiler construction, B., 655.
- and Keller, H., petrographical and chemical investigations on the genesis of coals, B., 336.



- Berl, E., and Kunze, W., semi-micro-method for determining the stability of cellulose nitrates, B., 13.
- and Reinhardt, L., nature of activated carbons, II., A., 1126.
- and Rueff, G., determining the stability of cellulose esters, acetates, and ethers, and of ethylcellulose, B., 343. Apparatus for determining detonation temperature of explosives, especially smokeless powders and cellulose nitrates, and the stability of cellulose acetates and rayons, B., 365. Nitrates produced from natural cellulose and cellulose hydrate by nitration with different mixed acids, B., 697. Absorption of nitric acid by cellulose nitrate and action of mixed acids on cellulose, B., 697. Viscosity of solutions of cellulose esters, B., 781. Effect of impurities in the mixed acid on the stability and nitrogen content of cellulose nitrates and on the viscosity of cellulose nitrate solutions, B., 781.
- and Schmitt, B., adsorption and moistening phenomena in technology and biology, A., 222. Wetting of hydrophilic and hydrophobic powders in a system of two non-miscible liquids, III., A., 1114.
- Schmitt, B., and Schulz, H., wetting of hydrophilic and hydrophobic powders in a system of two non-miscible liquids. II. Adsorption and wetting phenomena with lead glance and zinc blende powders, A., 672.
- and Winnacker, K., lead chamber process. IV. Spectrographic measurements, A., 684.
- Winnacker, K., and Saenger, H. H., "blue acid," A., 580, 1258.
- Berlin, H., and Internat. Patents Development Co., treatment of corn [maize] gluten, (P.), B., 888.
- Berlin, I., central regulation of fat metabolism, A., 857.
- Berlin, K. See Hofmann, F.
- Berlin, L. E., and Mantzev, B. M., preparation of ammonium phosphates. II., A., 906.
- and Mikerov, V., preparation of double and enriched superphosphates from Khibin apatite, B., 913.
- Berlin, R. I. See Zherdeva, L. G.
- Berliner, E., "meal-gluten test" and "flour-gluten test," B., 649.
- Berliner, F. S. See Hess, A. F.
- Berling, K. See Schwalbe, C. G.
- Berlingozzi, S., arsenical azo-derivatives. VI., A., 729.
- Berman, H. See Palache, C.
- Berman, L., parathyroid extraction, (P.), B., 172. Preparation of parathyrin, (P.), B., 1085.
- Berman, S. L. See Nakhmanovitch, M. I.
- Bermejo, L., and Bias, L., preparation of active charcoal from olive press-cake, B., 772.
- and Herrera, J. J., reactions of organic sulphur compounds, A., 964.
- See also Herrera, J. J.
- Bernal, J. D., and Crowfoot, D., crystal structure of vitamin-B<sub>2</sub> and of adenine hydrochloride, A., 768. Crystalline phases of substances studied as liquid crystals, A., 1107.
- See also Fowler, R. H.
- Bernard, A., mineral composition of the hemolymph of the crayfish, A., 965.
- Bernard, L. See Weiss, A. G.
- Bernardi, A., and Schwarz, M. A., chemical behaviour of Millon's base. II., A., 59. Occurrence of invertase in the hen's gizzard, A., 296. Enzymes of *Hydrochelidon nigra*, L., A., 736. Occurrence of amylase, invertase, and protease in the hen, *Hydrochelidon nigra*, L., and *Vanellus vanellus*, L., A., 847. Distribution of inorganic salts in birds. I. and II. Inorganic salts in *Vanellus vanellus*, L., A., 968. Egg-yolk oil, B., 836.
- Bernardini, F., and Gauthier, E. A., characterisation of sanza oil, B., 877.
- Bernardini, G., excitation of neutrons in beryllium, A., 1225.
- Bernardy, G., printing with Rapidogen dyes, B., 15.
- Berndorfer Metallwarenfabrik A. Krapp Akt.-Ges., sterilisation of beer, etc., (P.), B., 247, 336.
- Berndt, K., fastness to light of coloured papers, B., 585.
- Berner, E., glycerol degradation of lichenin, A., 150. Inulin. III. Depolymerisation of inulin, A., 380. Thermal decomposition of inulin, A., 380. Alcoholysis of sucrose. I., A., 937. Alcoholytic degradation of inulin, A., 938.
- and Melhus, F., alcoholytic degradation of starch, A., 1146.
- Bernhard, E. See I. G. Farbenind.
- Bernhauer, K., and Irgang, K., polycene compounds. III. Condensation products of crotonaldehyde, A., 53.
- and Neubauer, G., polycene compounds. II. Condensation products of crotonaldehyde; production of alicyclic compounds, A., 53.
- Schulhof, L., and Pfizer & Co., C., production of gluconic acid [by fermentation], (P.), B., 89.
- and Slanina, F., production of acids by *Aspergillus niger*. X. Oxalic acid from formic acid, A., 1082.
- Bernheim, F., interaction of histamine and nicotine on the intestine, A., 745.
- and Bernheim, M. L. C., action of veratrine and urethane on tissue oxidations, A., 744.
- Bernheim, G., preparation of metallic cyanamides, and their transformation into cyanides, A., 239.
- Bernheim, M. L. C. See Bernheim, F.
- Bernoulli, A. L., and Lotter, P., effect of isomerism in fusion diagrams of aromatic binary systems, A., 465.
- Bernreuther, F., and Bodenstein, M., behaviour of dry chlorine-hydrogen mixture in light, A., 576.
- Bernstein, P. See Kremann, R.
- Berrigan, J. B., Harrington, J., and Press & Drier Co., sludge dryer, (P.), B., 130.
- Berry, A. G. V., Melvill, F. L., and Banks, B. G., treatment of waste products obtained in refining of hydrocarbon material, (P.), B., 340.
- Berry, A. J., volumetric determination of hydrogen peroxide and Caro's acid in the presence of perdisulphuric acid, A., 921.
- Berry, H. R., heat treatment and reduction of [iron] ores, (P.), B., 234.
- Berry, J. A., detection of microbial lipase by copper soap formation, A., 638. Lactobacilli in frozen pack peas, B., 490.
- Berry, M. H. See Monkwitz, R. C.
- Berry, P. A., and Swanson, T. B., physical constants of cineole in relation to its degree of purity, B., 92. Determination of cineole in eucalyptus oil, B., 124. F.p. of a mixture of pure *o*-cresol and pure cineole in molecular proportions, B., 765.
- Berry, W. A., Storr, B. V., and Ilford, Ltd., photographic printing emulsions, (P.), B., 572.
- Berry, W. E. See Steward, F. C.
- Berryhill, W. R., and Williams, H. A., gastric secretion in hyperthyroidism before and after operation, A., 304.
- Berryman, M. L., bubble cap for oil-distilling apparatus, (P.), B., 378.
- Bers, G. H. C. van. See De Kleermaeker, K. J. B.
- Bersin, T., precipitation of telluric acid as the chromium hexammino-salt, A., 136.
- and Logemann, W., mercaptides of selenium and tellurium, A., 933. Influence of oxidising and reducing agents on the activity of papain, A., 1203.
- Bertetti, J. W. See Fuson, R. C.
- Berthelot, C., modern methods of low-temperature carbonisation and preparation of artificial anthracite, B., 256. Modern methods of treatment and utilisation of fine coal, B., 416. Recovery and treatment of by-products of coal carbonisation, B., 772. New problems of the coal industry; interest of modern methods for utilisation of coal to the Czechoslovak Republic, B., 946. Modern methods of cleaning and drying coals, B., 946. Recovery and treatment of natural gas for production of gasoline, B., 994. Flotation cleaning of fine coal, B., 1040.
- Bertho, A., acetic fermentation, A., 96.
- [with Schmitt, V.], mechanism of dehydrogenation, A., 1201.
- and Liang, W. S., alkaloid from *Ceanothus Americanus*, A., 729.
- Schuckmann, G. von, and Schönberger, W., Kurchi alkaloids. I. Bases from *Holarhena anti-dysenterica*, A., 728.
- Berthois, L., study of contact metamorphism by means of the heavy minerals, A., 369.
- Berthon, R., heats of wetting of silica gel, A., 24.
- Berthoud, A., attempted explanation of unexpected reactions of geometrical isomerides of ethylenic compounds, A., 370. Kinetics of action of iodine on potassium oxalate, A., 678. Influence of temperature on velocity of oxidation of nitric oxide to peroxide, A., 786. Photochemical oxidation of ethyl alcohol in presence of benzophenone, A., 792. Unexpected reactions of ethylene compounds, A., 1270.
- and Allmen, S. V., kinetics of the reaction between iodine and ferrous salts. I. and II., A., 469, 573.
- and Porret, D., relation between kinetics and chemical equilibrium. I. Isomerisation of the isobutyl bromides. II. Reversible transformation of  $\Delta^8$ -hexachlorocyclopentenone into  $\Delta^7$ -hexachlorocyclopentenone. III. Synthesis and decomposition of potassium pyrogallol carbonate, A., 903, 1012. Decomposition of ethyl chlorothion-carbonate in darkness and by action of light, A., 1127.

- Bertin, C., effect of sugar on the b.p. of wines, B., 407.
- Bertram, S. H., micro-determination of bromine in presence of chlorine and iodine, A., 686.
- Bertrand, G., change of colour of *Bolotus strobilaceus*, Scop., A., 438.
- and Brooks, G., constitution of laccol, A., 818. Latex of the lac tree of Cambodia, A., 1216. Laccol, A., 947.
- and Delauney-Auvrey, (Mme.) S., favourable influence of lead on hydrogenation by sodium amalgam, A., 931.
- and Okada, Y., lead in arable soil, B., 438. Occurrence [and determination] of lead in arable soils, B., 839.
- and Silberstein, L., sulphur and phosphorus in various parts of the wheat grain, A., 1093. Importance of sulphates as fertilisers, B., 322.
- Bertsch, J. A., catalytic process and apparatus [for vapour-phase organic catalysis], (P.), B., 528.
- and Rubber Service Labs. Co., treatment of rubber, (P.), B., 723.
- See also Jaeger, A. O.
- Bertuzzi, F. See Fester, G.
- Beruldsen, E. T. See Bartels, L. C.
- Berwald, E. See Fink, H.
- Berwind Fuel Co. of Delaware. See Komarek, G.
- Beryllium Development Corporation, Claf-  
lin, H. C., and Hubbard, D. O., extraction of metal values [beryllium or zirconium salts] from ores, (P.), B., 506.
- and Smith, J. K., heat treatment of beryllium-aluminium alloys, (P.), B., 714.
- See also Smith, J. K.
- Berzaczky, T., and Rupilius, K., vitamin-D content of vegetable oils, A., 871.
- "Berzelius" Metallhüttenges.m.b.H., and Freise, M. G., recovering metals, such as tin, lead, antimony, and bismuth, or alloys thereof, from substances which may also contain arsenic, cadmium and zinc, (P.), B., 235.
- Besborodov, M. A., behaviour of sodium carbonate during isothermal heating, B., 746.
- Bespolov, I. E., chemical treatment of cracked gasolines, B., 99.
- and Degtyareva, A., gum test for cracked gasolines, B., 99.
- Besredka, A., are antiviruses specific? A., 753.
- Bessé, C. See André, E.
- Besser, F. See Weil, A. J.
- Bessey, G. E., free lime in Portland cement, B., 707. Effect of carbon dioxide on strength of building materials, B., 917.
- See also Grime, G.
- Besson, F. S., over a minute mixing [of concrete] adds no strength, B., 269.
- Best, C. H., Huntsman, M. E., and Solandt, O. M., effect of choline on fat deposition in species other than the white rat, A., 306.
- Best Foods, Inc. See Jones, J. H.
- Bestuzhev, M. A., refining Grozni mixed-base fuel oil, B., 136.
- Besuglov, V. P., and Tutkevitch, L. M., effect of thyroid on secretion and cholesterol content of bile, A., 868.
- Bethe, G., chemical and physical conditions of hydrogen in platinum and palladium when influencing photo-electric activity, A., 441.
- Bethe, H., and Fröhlich, H., magnetic interaction of metal electrons, A., 1109.
- Bethke, R. M., Edgington, B. H., and Kick, C. H., effect of calcium-phosphorus relationship of the diet on growth and bone formation in the pig, A., 1326.
- Kick, C. H., and Wilder, W., effect of calcium-phosphorus relationship on growth, calcification, and blood composition of the rat, A., 90.
- See also Hunt, C. H., Kick, C. H., Krauss, W. E., and Wilder, O. H. M.
- Bethlehem Steel Co. See Little, J. E., and Shimer, W. R.
- Betrabet, M. V., and Chakravarti, G. C., constituents of alkanet root (*Anchusa tinctoria*, Lam.). I. Constitution of alkanin, A., 1165. Constituents of the wax from alkanet root, A., 1217.
- Better, E. I., bleaching of palm oil by air, B., 27. Presence of castor beans in feeding-stuffs [oil cake, etc.], B., 42. Determination of inflammability of textile olefines, B., 974.
- See also Davidsohn, J.
- Betterton, J. O., and Amer. Smelting & Refining Co., lead and zinc alloys, (P.), B., 432. Apparatus for dezincoing lead, (P.), B., 713. Forming metal alloys; [introducing As into antimonial lead], (P.), B., 713.
- Betz, C. E., Holden, J. H., and Handy, J. O., sulphur dioxide in air of industrial community, B., 734.
- Betz, H., breakdown strength of the thinnest Ta<sub>2</sub>O<sub>5</sub> and Al<sub>2</sub>O<sub>3</sub> layers in relation to layer thickness, A., 667.
- See also Günther-Schulze, A.
- Betz, O., absorption of short electric waves in ionised gases; an attempt to detect the long-wave radiation of hydrogen atoms, A., 108.
- Beukers, M. C. F. See Reinders, W.
- Beumer, H., formation of sterols in germination, A., 648.
- and Fasold, H., degradation of cholesterol, A., 630.
- Beunes, A. See Ornstein, L. S.
- Beuschlein, W. L., and Dehn, W. M., multiple steam-bath, A., 1136.
- and Wright, C. C., hydrogenation of American coals, B., 98. Hydrogenation of American coals in anthracene, B., 577.
- Beutel, A. P., and Dow Chem. Co., liquid heating and vaporising [e.g., for production of phenol], (P.), B., 288.
- Beutel, E., and Kutzelnigg, A., sulphide mirrors. I. Lead sulphide, A., 795.
- Beutelspacher, H. See Wrangell, M. von.
- Beuthe, H., effect of ultrasonic waves on chemical processes, A., 473.
- Beutler, H., principal series  $^1S_0-m^1P_1$  and  $^1S_0-m^3P_1$  of the mercury arc spectrum (Hg I); perturbation term  $^1P_1(5d)^4(6s)^26p$ , A., 992.
- Beutner, R., Caplan, M., and Loehr, W. M., nature of alleged molecular sieve membranes, A., 900.
- Bevan, E. E. See Firestone Tire & Rubber Co.
- Bey, L. See under Ligor Bey.
- Bey, R. See under Rezat Bey.
- Beyer, A., constitution of special soaps derived from chlorohydroxy-fatty acids, B., 314.
- See also Lindner, K.
- Beyer D. C. See Peterson, F. C.
- Beyer, F. W., photographic-photometric method of measuring absorption by solutions in the visible, A., 885.
- Beyer, H. See Leuchs, H.
- Beyers, E. See John, W. E.
- Beynon, C. E., corrosion fundamentals, B., 471.
- Beythien, A., regulations for control of sweet fruit musts and fruit syrups, B., 1077.
- Bezák, A., relation between tetanus symptoms and the calcium and inorganic phosphorus content in serum of parathyroidectomised dogs, A., 1077.
- Bezssonoff, N., and Delire, A., colour reactions of vitamin-C, A., 872.
- Bezzi, S., volatility of boric acid in steam, A., 120. Action of hydrogen peroxide on aldehydes, A., 1036.
- Bhabha, H. J., absorption of cosmic rays, A., 1225.
- Bhagavantam, S., anomalous behaviour of methane in the Raman effect, A., 7. Intensity relations in the Raman spectrum of hydrogen. I. and II., A., 548, 855. Electric polarisability and diamagnetic susceptibility of molecules, A., 890. Infra-red and Raman spectra of carbon disulphide, A., 1103.
- See also Venkateswaran, S.
- Bhagwat, M. R., and Combustion Utilities Corp., precipitation of [phenol-formaldehyde] resins from residual oils, (P.), B., 596.
- Bhagwat, W. V., relation between intensity and velocity of a photochemical reaction, A., 236.
- See also Doosaj, S. S.
- Bhalla, A. L., and Rây, J. N., synthesis of cyanomaculurin and its derivatives. I. 3:5:7:2':4'-Pentamethoxyflavan, A., 511.
- Bhargava, L. N., and Dhar, N. R., photo-synthesis of nitrogenous compounds, A., 1256.
- See also Dhar, N. R.
- Bhargava, S., and Mukherjee, J. B., modification of X-rays by passage through matter, A., 108.
- Bhatnagar, S. S., temperature and diamagnetism, A., 664.
- and Lahiri, T. K., magnetic investigation of single electron linkings in compounds of the type tellurium dimethyl dihalide, A., 1002.
- and Lakra, C. L., magnetic properties of iodine in different solvents, A., 1104.
- Mathur, K. G., and Budhiraja, K. L., triboluminescence, A., 209.
- See also Azim, M. A.
- Bhatt, C. T. See Shah, M. S.
- Bhattacharya, A. K., relation between light intensity and velocity of photochemical reactions, A., 236. Photochemical hydrolysis of sucrose, A., 238.
- and Dhar, N. R., decompositions by light in aqueous solutions. I. Decomposition of trichloroacetic acid and ferric thiocyanate, A., 36. Composition of Prussian blue and Turnbull's blue; influence of adsorption on the composition, A., 920.
- Prakash, O., and Dhar, N. R., photochemical reaction between bromine and potassium oxalate in visible and ultra-violet light, A., 34.
- See also Dhar, N. R., and Ghosh, Satyeshwar.
- Bhattacharyya, K. C. See Sircar, A. G.

- Bialaszewicz, *K.*, mineral composition of circulating fluids in marine animals, *A.*, 734.
- Bialkowski, *H. W.*, rosin sizing [of paper], *B.*, 1002.
- Bianchetti, *G.*, causes of presence of hydrogen sulphide in gas after purification with hydrated ferric oxide, *B.*, 1041.
- Biasotti, *A.* See Houssay, *B. A.*
- Bibesco, *J.* See Vintilescu, *J.*
- Bibikova, *V.* See Kronmann, *E.*
- Bicalho, *N. dos S.*, analysis of wines, *B.*, 842.
- Bicheroux, *F.*, removal of phosphorus from cast iron in a basic converter, *B.*, 429.
- Bichowsky, *M.*, and Gingold, *J.* [with Brischke, *M.*], analysis of natural magnesium silicates, *A.*, 244.
- Bickel, *A.*, influence of diet on the course of the combustion processes in the body, *A.*, 1324.
- and Kanai, *I.*, influence of alcohol on oxidation [in the animal organism], *A.*, 182.
- and Kojima, *M.*, effect of rare earths on metabolism, *A.*, 1329.
- Bicking, *G. W.* See Rasch, *R. H.*, and Whittier, *E. O.*
- Bidaud, *F.* See Du Pont de Nemours & Co., *E. I.*
- Bibesheimer, *H.* See Berl, *E.*
- Biebl, *M.*, metabolism of phenol and indole. I. and II. Latent phenol-indole poisoning and arteriosclerosis, *A.*, 970.
- Biechele, *O.* See Boas, *F.*
- Biedermann, *H.* See Briner, *E.*
- Biedermann, *R.* See Geigy A.-G., *J. R.*
- Bielenberg, *W.*, Abbe's number and constitution of liquid organic compounds, *A.*, 1001.
- Bielouss, *E.*, and Gardner Laboratory, Inc., *H. A.*, synthetic resins, (P.), *B.*, 557.
- Bielschowsky, *F.* See Fränkel, *Ernst.*
- Biely, *J.* See Asmundson, *V. S.*, and Beall, *D.*
- Bien, *P. B.* See Kraus, *C. A.*
- Bier, *A.*, and Roman, *W.*, determination of "normal" bromine content of blood. I., *A.*, 965.
- See also Zondek, *H.*
- Bierich, *R.*, and Lang, *A.*, lipin content of malignant tumours. II., *A.*, 738.
- Lang, *A.*, and Rosenbohm, *A.*, reversible oxidation-reduction system in mammalian tissue, *A.*, 847.
- and Rosenbohm, *A.*, lactic acid content of normal and carcinomatous tissue, *A.*, 414. Glutathione of tissue, *A.*, 523.
- Bierling, *F.*, artificial cementitious glazed plates, etc., (P.), *B.*, 63.
- Biermann, *G.*, preservative action of benzoic acid, *B.*, 683.
- Bierner, *L.*, sulphurisation of iron by hydrogen sulphide and the equilibria involved, *B.*, 1012.
- See also Eisenstecken, *F.*
- Bierry, *H.*, Gouzon, *B.*, and Magnan, *C.*, determination of blood-sugar, *A.*, 521.
- and Rathery, *F.*, *B.*-vitamins and carbohydrate metabolism, *A.*, 1339.
- Rathery, *F.*, and Laurent, *Y.*, liver and protein-sugar, *A.*, 306.
- Biesalski, *E.*, and Giehmann, *H.*, catalytic determination of hydrogen by means of a contact candle, *A.*, 135.
- Bieter, *R. N.*, action of diuretics on the aglomerular kidney, *A.*, 1328.
- Bieto, *E.* See Formiguera, *R. C.*
- Bigazzi, *R.*, structural constant relative to changes of state, *A.*, 15.
- Biggs, *B. S.*, and Bailey, *J. R.*, nitrogen compounds in petroleum distillates. V. Use of sulphur dioxide in the separation of petroleum bases, *A.*, 1305.
- Bigelow, *M. H.*, and Silverman, *A.*, selenium ruby glass: preparation and X-ray study, *B.*, 548.
- Bigelow, *N. M.* See Jacobs, *W. A.*
- Bigger, *A. F.*, and Rubber Process Corp., composition of matter [for treating rubber], (P.), *B.*, 930.
- Squires, *A. C.*, and Rubber Process Corp., treatment of rubber, (P.), *B.*, 930.
- Biggs, *B. S.* See Felsing, *W. A.*
- Biglietti, *F.* See Ponzio, *G.*
- Bigwood, *E. J.* See Thomas, *Jacques.*
- Bihlman, *V. W.* See Williams, *H. M.*
- Billmann, *E.*, and Klit, *A.*, formation of crystal nuclei in piperonal and *allocinnamic acid*, *A.*, 665.
- Bijleveld, *W. J.* See Mathias, *E.*
- Bijvoet, *J. M.* [with Nieuwenkamp, *W.*], crystal structure of the dihalides, *A.*, 892.
- See also Nieuwenkamp, *W.*
- Bikerman, *J. J.*, properties of Becquerel membranes, *A.*, 223. Determination of tetramethylammonium, *A.*, 381. Ionic theory of electro-osmosis, streaming currents, and surface conductivity, *A.*, 459. Electrical conductivity of capillary and colloidal systems, *A.*, 908.
- Bilek, *F.*, growth and calcification catalysts in animals, *A.*, 100.
- and Hynek, *L.*, possibility of increasing milk secretion of cows by feeding with irradiated feeding stuffs, *A.*, 1186.
- Biletzky, *M.*, dependence of plant catalase activity on nourishment and growth, *A.*, 647.
- Bilfinger, *R.*, and Ellsner, *G.*, rôle of "armoured chromium bath" in chromium plating, *B.*, 1063.
- Bilger, *F.* See Halden, *W.*
- Bilham, *P.*, determination of small amounts of aluminium in food; note on the spectrographic method, *B.*, 42.
- Bill, *A. H.* See Mull, *J. W.*
- Billiet, *V.*, artificial colouring of crystals, *A.*, 446.
- Billing, *W. M.* See Grant, *L. S., jun.*
- Billings, *S. P.* See Brit. Thomson-Houston Co.
- Billington, *P. S.*, Simmonds, *F. A.*, and Faird, *P. K.*, comparison of four methods for determination of lignin, *B.*, 263.
- See also Simmonds, *F. A.*
- Billon, *P.* See Guiehard.
- Bills, *C. E.*, and Mead Johnson & Co., method of [ultra-violet] irradiation, (P.), *B.*, 26.
- See also Honeywell, *E. M.*
- Bills, *C. H.*, and Griswold, *G. G.*, cooling system, (P.), *B.*, 847.
- Billy, *M.*, and Trombe, *F.*, electric furnaces with interchangeable elements, *A.*, 1025.
- Bilton, *P.* See Vigzol Oil Refining Co. (London).
- Biltz, *H.*, simultaneous electrolytic determination of lead and copper, *A.*, 42.
- Lachmann, *F.*, and Lemberg, *R.*, condensation of hydantoins with parabanic acids, *A.*, 402.
- Biltz, *M.*, blue and green sensitivity of photographic emulsions in absolute measure, *A.*, 359. The DIN degree, *A.*, 1256.
- Biltz, *W.*, rhenium trioxide and rhenium dioxide, *A.*, 1259. Molecular and atomic volumes. XL. Calculation of the density of glasses, *B.*, 915.
- and Klemm, *W.*, subdivision of the series of transition elements, *A.*, 996.
- and Le Boucher, *L.*, molecular volumes of ammonium phosphates, *A.*, 1002.
- and Weibke, *F.*, molecular and atomic volumes. XL. Calculation of the density of glasses, *B.*, 915.
- See also Geilmann, *W.*
- Binapff, *J.*, and Krey, *W.*, oxidation of benzene compounds [tetrahydronaphthalene], (P.), *B.*, 220.
- Binard, *G.* See Baerts, *F.*
- Bincer, *H.* See Eggert, *J.*
- Binder, *E.* See Nitescu, *I. I.*
- Binder, *H.*, heat-exchange unit made of high-grade chrome-nickel steels, (P.), *B.*, 368.
- Binder, *O.*, absence of  $\alpha$ -cellulose in tubercle bacilli, *A.*, 984.
- Bindley, *W. T. R.*, catalytic treatment of organic and inorganic substances, (P.), *B.*, 256. Catalytic treatment of carbonaceous materials in gaseous or liquid phase, (P.), *B.*, 774.
- Binet, *L.*, and Arnaudet, *A.*, quantitative changes in the reduced glutathione content of liver under various experimental conditions, *A.*, 312.
- Aubel, *Eugene*, and Marquis, *M.*, combustion of fat in the lungs, *A.*, 742.
- and Klukowski, *J.*, variations in blood-lactic acid, *A.*, 1316.
- Bing, *F. C.*, colorimetric calibration of micro-pipettes, *A.*, 990.
- Adams, *W. L.*, and Bowman, *R. O.*, protein requirement of the albino mouse, *A.*, 309.
- See also Eveleth, *M. W.*, and Heinle, *R. W.*
- Bingel, *A.* See Gollwitzer-Meier, *K.*
- Bingenheimer, *E.*, irradiation treatment in mongolism; effect on the cholesterol of blood-serum, *A.*, 1071.
- See also Mader, *A.*
- Bingham, *E. C.*, and De Turk, *H. L.*, study of association by the fluidity method, *A.*, 118.
- Bingold, *K.*, differences in chemical behaviour of blood of various animal species, *A.*, 81.
- Binkele, *H. E.*, effective cross-sections of molecules on the basis of gas theory. II. Its dependence on other magnitudes, *A.*, 203.
- See also Kulp, *M.*
- Binns, *D.* See Muntwyler, *E.*, and Myers, *V. C.*
- Binns, *F. W.*, Lurie, *J. M.*, and Virginia Smelting Co., making bisulphite reactions with sulphur dioxide acid solutions; [manufacture of sulphur dioxide compound of nitroso- $\beta$ -naphthol], (P.), *B.*, 220. Effecting bisulphite reactions with sulphur dioxide in substantially neutral solutions; [preparation of  $\alpha$ -naphthol-4-sulphonic acid], (P.), *B.*, 704.
- Binns, *H.*, psycho-technical investigation of worsted yarns made from short wools, noils, and wastes, *B.*, 222.
- Binova, *E. S.*, and Raihorodska, *R. L.*, determination of arsenic in medicinal preparations, *B.*, 524.
- Binz, *A.*, and Maier-Bode, *H.*, action of iodopyridone derivatives on streptococci, *A.*, 430.
- Maier-Bode, *H.*, and Morisawa, *K.*, alkoxypyridinecarbinic acids, *A.*, 842.

- Binz, A., R  th, C., Maier-Bode, H., and Herrmann, Karl, halogenated pyridone derivatives in radiography, A., 132.
- Biot, A., new empirical formula for refractive indices, A., 114. Formula to represent dispersion of optical glass, A., 448.
- Biquard, D., [ultra-violet] absorption of certain classes of organic molecules, A., 885. Rotatory dispersion of certain classes of organic molecules, A., 1103.
- Biquard, P., optical method for measuring the absorption of ultrasonic waves in liquids, A., 217. Absorption coefficients of liquids for ultrasonic waves, A., 894.
- See also Lucas, R.
- Birch, A. E., and Weir, H. M., prevention of fog entrainment in continuous [oil] distillation, B., 772.
- Birch, T. W., and Dann, W. J., determination and distribution of ascorbic acid (vitamin-C) and glutathione in animal tissues, A., 541.
- and Harris, L. J., titration curve and dissociation constants of vitamin-C, A., 646.
- Harris, L. J., and Ray, S. N., hexuronic (ascorbic) acid as the antiscorbutic factor and its chemical determination, A., 433. Microchemical method for determining hexuronic content (vitamin-C) of foodstuffs, A., 646.
- Birch-Hirschfeld, A. See Eichholtz, F.
- Bircher, L. J. See Dietrichson, G.
- Birkenbach, L., cadmium azide, A., 1106.
- and Goubeau, J.,  $\psi$ -halogens. XXII. Reaction of metallic salts with iodine and bromine in presence of benzene, A., 1152.
- and Kolb, H.,  $\psi$ -halogens. XXIII. Reactions and tautomerism of cyanates, A., 1281.
- Bird, C. L., dry-cleaning bath. I., B., 1006.
- Bird, O. D. See Emmett, A. D.
- Bird, P., Colburn, F., and Smith, Frank, effect of particle size on [water-softening] capacity of zeolites, B., 527.
- Bird & Son, Inc. See Graham, J. E.
- Birdsall, R. W., commercial aspect and future possibilities of rotenone, B., 647.
- Birenbaum, M. See Hersz  nkiel, H.
- Birett, W., modern chromium-plating plant, B., 194.
- Birge, E. A. See Juday, C.
- Birge, R. T., precision determination of atomic mass ratios from band spectra, A., 204. Mass defects of  $C^{13}$ ,  $O^{18}$ ,  $N^{15}$ , from band spectra, and relativity relation of mass and energy, A., 204. Probable values of  $e$ ,  $h$ ,  $e/m$ , and  $a$ , A., 1226. Value of  $e/m$ , A., 1226.
- and Menzel, D. H., relative abundance of oxygen isotopes, and basis of the at. wt. system, A., 204.
- See also Babcock, H. D.
- Birkhimer, E. R., and Atlantic Refining Co., treatment of hydrocarbon oil, (P.), B., 996.
- Birkholz, H. E., and Amer. Air Filter Co., Inc., [air-]filtering material, (P.), B., 898.
- Birkshaw, J. H., and Raistrick, H., biochemistry of micro-organisms. XXVII. Production of luteic acid from various sources of carbon by *Penicillium luteum*, Zukal, A., 752.
- Birkmann, M. See Pestemer, M.
- Birmingham Electric Furnaces, Ltd., and Lobley, A. G., electric [heat treatment] furnaces, (P.), B., 512.
- Birnie, J. H. See Taylor, I. R.
- Birosel, D. M., sativic and tetrabromostearic acids derived from lumbang oil and their significance in relation to naturally occurring linoleic acid, A., 438.
- Birr, E. J., anomalous electrolytes. II. Electrical conductivity of solutions of iodine and iodine compounds in ketones, A., 907.
- See also Audrieth, L. F., and Walden, P.
- Birrell, K. S., essential oil of *Libocedrus bidwillii*, B., 123.
- Birulia, A., qualitative analysis of anions, A., 1260.
- Bisby, G. R., Jamieson, M. C., and Timonin, M., fungi found in butter, B., 985.
- Bischof, W., and Maurer, E., distribution of phosphorus between iron and calcareous iron phosphate slags, B., 509.
- Biscoe, J., and Warren, B. E., structure of euclase, A., 1107.
- Bishop, (Miss) E. R., radioactive families, A., 204.
- and Dollins, C. B., determination of calcium by the magneto-optic method, A., 137. Radium isotopes, A., 204.
- Lawrenz, (Miss) M., and Dollins, C. B., lead isotopes, A., 204.
- See also Allison, F.
- Bishop, G. See Gillam, A. E.
- Bishop, J. A. See Hill, A. E.
- Bishop, L. R., and Day, F. E., barley protein researches; prediction of extract. II. Effect of variety on relation between nitrogen content and extract, B., 1030.
- See also Russell, (Sir) E. J.
- Bishop, W. B. S., effect of gamma radiations on chloroform, B., 581.
- Biskamp, H., investigations of the negative group of  $CO^+$ , A., 1226.
- Biskind, G. R. See Althausen, T. L.
- Biskind, M. S., effect of iodine in different solvents on the permeability of frog skin to Ringer solution, A., 1199. Penetration through tissue of iodine in different solvents, A., 1199.
- Bissell, R. E., and Thompson Products, Inc., [martensitic cobalt-chromium-iron] alloy, (P.), B., 552.
- Bissi, L. See Ubaldini, I.
- Bistrzycki, A., and Krause, G., diphenyl-naphthylmethane series, A., 273.
- Biswas, N. N. See Dhar, N. R.
- Biswas, S. C., diamagnetic susceptibility of the rare-gas atoms according to Slater's method, A., 449.
- Bito, K., Aoyama, K., and Matsui, M., thermal dissociation of calcium carbonate in a carbon dioxide atmosphere. III. Primary and secondary dissociation points, A., 906.
- Kad  no, M., and Matsui, M., transition point of sea sand, A., 802.
- and Matsui, M., thermal dissociation of calcium carbonate in a carbon dioxide atmosphere. IV. Thermal change of precipitated calcium carbonate, A., 906. Pt|Pt-Rh thermocouple, A., 925. Thermo-electric temperature scale of Pt|Pt-Rh thermocouple, A., 925.
- See also Matsui, M.
- Bito, S., influence of food on nutrition of insects [silkworms], A., 178. Wild silks. II. Isoelectric point of liquid silk. III. Viscosity of fibroin sol, A., 178.
- Bitter, F., homogeneously distorted cubic ferromagnetic lattices, A., 212. Ferromagnetism of dilute solid solutions, A., 212. Magnetisation of ferromagnetic crystals, A., 557. Mosaic structure of cobalt crystals, A., 1234.
- Bitter, J. L., Elssner, R., and Amer. Glanzstoff Corp., treatment of yarn [for even shrinkage]; artificial filaments [for, even elongation and strength], (P.), B., 543.
- Bixby, E. M. See Booth, H. S.
- Bizard, G. See Polonovski, Michel.
- Bizzell, C. K., and Bizzell, J. E., treatment of edible nuts, (P.), B., 890.
- Bizzell, J. A. See Lyon, T. L.
- Bizzell, J. E. See Bizzell, C. K.
- Bjerregaard, P. B. See Schou, S. A.
- Bj  rn-Andersen, H., separation of cerium from the other cerium earths, A., 240.
- Bj  rkst  dt, W. G., and Doherty Research Co., zircon refractory, (P.), B., 549.
- Bjurstr  m, T., R  ntgen analysis of the systems iron-boron, cobalt-boron, and nickel-boron, A., 669.
- Blacet, F. E., MacDonald, G. D., and Leighton, P. A., microanalysis of gases. II. Carbon monoxide, ethylene, and acetylene, A., 930.
- See also Leighton, P. A.
- Blachny, A. See Reinhold, H.
- Black, A. P., Rice, O., and Bartow, E., formation of floc by aluminium sulphate [in water purification], B., 734.
- See also Bartow, E.
- Black, C. P., apparatus for recording the rate of cooling of a kata-thermometer, A., 585.
- Black, J. C., and Gard, E. W., apparatus for heating and cracking oil, (P.), B., 52. Heating and cracking of oil, (P.), B., 295.
- and Gasoline Products Co., liner for [oil-]cracking apparatus, (P.), B., 100. Heating of [hydrocarbon] oil, (P.), B., 456. Heating coil for cracking hydrocarbon oils, (P.), B., 456. Cracking and processing of petroleum, (P.), B., 456. Cracking and separating gasoline stock from petroleum oils, (P.), B., 776. Apparatus for treating hydrocarbons, (P.), B., 953.
- Rial, W. D., McConnell, J. R., and Richfield Oil Co., treatment of lubricating oil stocks, (P.), B., 420.
- Black, J. G., and Nash, W. G., effect of hydrogen on intensities of the spectra of zinc, cadmium, and mercury, A., 199.
- Black, J. W., packing of ground coffee, B., 1033.
- Black, M., algal sediments of Andros Island, Bahamas, A., 691.
- Black, (Miss) M. M. See Hartree, D. R.
- Blackburn, F., benzol recovery, B., 50.
- Blackburn, W. H. See Dent, F. J., and Wood, J. W.
- Blackett, J. See Blackett, J. T.
- Blackett, J. T., Blackett, J., and Blackett, Hutton & Co., mixing or grinding apparatus, etc., (P.), B., 208.
- Blackett, P. M. S., and Occhialini, G. P. S., photographs of tracks of penetrating radiation, A., 441.
- See also Chadwick, J.
- Blackett, Hutton & Co., Ltd. See Blackett, J. T.
- Blackman, G. E., effects of ammonium sulphate and other forms of nitrogen on botanical composition of closely cut turf, B., 164.

- Blackman, *M.*, Raman spectrum of rock-salt, A., 661.  
See also Born, *M.*
- Blacktin, *S. C.*, dusts, smokes, mists, and fogs, A., 23, 123. Colloid correlation principle, A., 777. Interaction between soot films and oil, A., 900. Colloid correlation principle, A., 1243. Interaction between soot films and oil, A., 1243.
- Blackwelder, *E.*, age of the Meteor Crater, A., 140. Insolation hypothesis of rock weathering, A., 928.
- Blackwood, (*Miss*) *J. H.* See Patterson, *T. S.*
- Blackwood, *O. H.*, Exline, *P. G.*, and Koppers Co. of Delaware, measurement of vapour [in warm gas], (P.), B., 689.
- Bladergroen, *W.*, [II] of the blood, A., 966.
- Blagden, *J. W.* See Howards & Sons, Ltd.
- Blagoveshensky, *A. F.*, and Sossiedov, *N. I.*, gluten-dissolving enzyme of wheat and barley seeds, A., 1331.
- Blaikie, *K. G.* See Canadian Electro Products Co.
- Blain, *C. M.*, *jun.* See Scott, *A. F.*
- Blair, *A. W.*, and Prince, *A. L.*, influence of organic matter on crop yield and on the carbon: nitrogen ratio and nitrate formation in the soil, B., 403.
- Blair, *C.* See Yost, *D. M.*
- Blair, *C. A.*, extraction of raw tanning materials [for analysis], 1933, B., 980.
- Blair, *C. M.* See Coffman, *D. D.*, and Henze, *H. R.*
- Blair, *G. W. S.* See Schofield, *R. K.*
- Blair, *J.*, dye, B., 421.
- Blair, *J. M.*, and Hylan, *M. C.*, intermittency effect in photographic exposure, A., 1255.
- Hylan, *M. C.*, and Meredith, *G. T.*, photo-electric cell in [photographic] densitometry, B., 940.
- See also Joehneck, *K. M.*, and Lester, *J. A.*
- Blair, *M. G.*, and Alden, *R. C.*, significance of the A. S. T. M. distillation curve, B., 533.
- Blair, *W. M.* See Taylor, *W. F.*
- Blair Strip Steel Co. See Lewis, *L. L.*
- Blairs, Ltd. See MacLaurin, *R.*
- Blake, *M. A.* See Tiedjens, *V. A.*
- Blake-Smith, *L.* See Meinzer, *G. H.*
- Blakeley, *T. H.*, slide nomograms applied to gas-works routine calculations, B., 134.
- Blakeley, *W.*, gas purifiers, (P.), B., 580.
- Blalock, *A.*, and Beard, *J. W.*, effects on composition of blood of subcutaneous injection of normal salt solution into normal dogs and into dogs subjected to intestinal trauma, graded hæmorrhages, and histamine injection, A., 87.
- Beard, *J. W.*, and Thuss, *C.*, intravenous injections; effects on composition of blood of injection of various fluids into dogs with normal and with low blood-pressure, A., 87.
- See also Beard, *J. W.*
- Blanc, (*Baron*) *G. A.*, persistence of anisotropic structure in silica obtained from the action of acids on leucite, A., 15. Leucite as a source of alumina, potash, and silica, B., 16.
- Blanchard, *A. A.* See Windsor, *M. M.*
- Blanchard, *E.*, and Chaussin, *J.*, silica of the wheat plant, A., 1093.  
See also Viala, *M.*
- Blanchard, *L. W.*, *jun.* See Eberlin, *L. W.*
- Blanchard, *M. H.* See Edsall, *J. T.*
- Blanchet, *O. J.*, induction electric furnace [for annealing drill shanks, etc.], (P.), B., 636.
- Blanchetière, *A.*, product of action of pepsin on glycine, A., 981.
- and Arnoux, *M.*, semi-micro- and micro-determination of magnesium, A., 364.
- Blanck, *E.*, weathering of granite at Schenkenberg, Odenwald, A., 251. "Humic acid weathering" in the light of recent soil research, B., 438.
- [with Dörfeldt, *W.*, and Laves, *F.*], weathering of basalt in South Hanovia, A., 252.
- and Giesecke, *F.*, weathering and soil formation in Spitzbergen granite, A., 1269.
- Giesecke, *F.*, and Heukeshoven, *W.*, course of nutrient intake of oats during its growth period, B., 680. Substitution of potassium by rubidium in oat cultures, B., 1028.
- and Klander, *F.*, nature of "Kuhlerde" and its action on marsh soils, B., 34.
- Oldershausen, *E. von*, and Maurmann, *G.*, formation of red earth in and on the Zechstein limestone of central Germany, A., 253.
- Blandon, *E. E.* See Thompson, *W. H.*
- Blank, *E. W.*, micro-m.p. determination with the Thiele tube, A., 248. Electric heating units for microchemical work, A., 801. Micro-density determination of gases by direct weighing, A., 801.
- Blank, *F.*, mosaic structure of crystals, A., 557.
- Blanke, *W.* See Juza, *R.*
- Blanken, *P. L.*, determination of sulphur in cast iron and steel, B., 271. Determination of sulphur in wrought iron, B., 919.
- Blankensma, *J. J.*, and Schreinemachers, *H. H.*, reaction velocities of chloro- and bromo-2,4-dinitrobenzene with aliphatic amines, A., 786.
- Blanton, *F. S.* See Spruijt, *F. J.*
- Blas, *L.* See Bermejo, *L.*
- Blasche, *C.*, [imino-acids as intermediates in] synthesis and degradation of amino-acids, A., 308.
- Blaser, *B.*, polybasic acids as catalysts for reduction of ammoniacal silver solutions with phosphorous acid, A., 1126. Action of nitric acid on hypophosphoric acid, A., 1130.
- Blashennova, *A. N.* See Schmanenkov, *I. V.*
- Blass, *J.* See Machebœuf, *M. A.*
- Blatch, *F. H.*, apparatus for washing coal, (P.), B., 180.
- Blatchford, *A. H.*, diffraction of X-rays by liquid sulphur, A., 891.
- Blatz, *P. A.*, treating [wet chrome-tanned]-leather, (P.), B., 679.
- Blau, *E.*, economics of processes for producing distilled water for industrial purposes, B., 494.
- Blau, *H. H.*, [light]-diffusing glasses for illumination, B., 915.
- Blau, *M.*, and Wambacher, *H.*, influence of condition of grains [in a photographic emulsion] on their sensitivity to exposure to  $\alpha$ -particles, A., 238.
- Blau, *N. F.*, determination of thyroxine in thyroid, A., 1209.
- Blaw-Knox Co. See Miscampbell, *H.*
- Blazsó, *S.*, micro-determination of pyrocatechol and its use in the determination of phenolase, A., 862.
- Bleachers' Association Ltd., Parker, *C. S.*, Wall, *C. L.*, and Farrington, *F.*, dyeing with vat dyes [coloured resist effects], (P.), B., 225. Dyeing with azo-dyes and vat dyes, (P.), B., 225. Dyeing with azoic [ice] colours, (P.), B., 587. Production of pattern effects with vat dyes, (P.), B., 667.
- and Sutton, *G. D.*, treatment of fibres or fabrics consisting of or containing cellulose acetate, (P.), B., 784. Delustring of fibres or fabrics consisting of or containing cellulose acetate, (P.), B., 863.
- Wall, *C. L.*, and Farrington, *F.*, fast dyeing with direct dyes, (P.), B., 961.
- Bleakney, *H. H.* See Hardy, *T. W.*
- Bleakney, *W.*, and Gould, *A. J.*, relative abundance of hydrogen isotopes, A., 994.
- Bleeschmidt, *E.*, and Boas, *W.*, Laue reflexion: photographs with oscillating quartz rod, A., 665.
- Blechta, *F.*, [silver] azido detonator, B., 988.
- Bleecker, *W. F.*, treatment of petroleum [to remove sulphur compounds], (P.), B., 538.
- Bleibler, *E.*, apparatus [strickling device] for coating threads, ribbons, or similar formed of natural fibres, (P.), B., 622.
- Bleyberg, *W.*, and Lettner, *H.*, alkalinity of dilute aqueous soap solutions and effect thereon of the addition of free alkali, B., 74.
- Bleyer, *B.*, determination of vitamin-C (ascorbutin) in milk, A., 1213. Potato starch and its importance for nutrition, B., 441.
- Diemair, *W.*, and Lix, *G.*, detection of sorbitol in wine, B., 39, 407.
- and Spiegelberg, *E.*, evaluation of rubber tubing containing antimony pentasulphide for use in the foodstuffs industry. II, B., 480.
- See also Braun, *W.*
- Blicke, *F. F.*, and Marzano, *C.*, tetra-aryl-arsonium halides, A., 962.
- and Oakdale, *U. O.*, distibyls. II. Tetra-*p*-bromophenyl- and -*p*-tolyl-distibyls; di- $\alpha$ -naphthylidostibine, A., 519.
- Patelski, *R. A.*, and Powers, *L. D.*, diarsyls. V. Reactions of tetraphenyl-diarsyl, A., 519.
- and Powers, *L. D.*, diarsyls. IV. Interaction of di-iododiphenyldiarsyl with alkali, phenylarsine, and diphenylarsine, A., 290. Phenyl- and diphenylarsine, A., 518. Action of arsines with halogenarsines, A., 702.
- Blinic, *M.* See Samec, *M.*
- Blinks, *L. R.*, protoplasmic potentials in *Halocystis*. III. Effects of ammonia, A., 1329.
- Blinn, *H. M.*, and Doughnut Machine Corp., dry coating [dusting sugar] for alimentary products, (P.), B., 731.
- Blish, *M. J.*, and Sandstedt, *R. M.*, estimation of flour diastatic value, B., 602.
- See also Sandstedt, *R. M.*
- Blish, *M. U.* See Mussehl, *F. E.*
- Bliss, *A. R.*, *jun.*, Davy, *E. D.*, Rosin, *J.*, Blome, *W. H.*, and Morrison, *R. W.*, collaborative comparison of five opium assay procedures, B., 1084.

- Bliss, A. R., jun., and Morrison, R. W., comparison of two xanthine diuretics: theophylline sodium acetate and theobromine sodium salicylate, A., 746.
- Pabst, M. L., Morrison, R. W., and Prather, E. O., jun., study of the U.S.P. X method and a modified method for assay of oleoresin of aspidium, B., 571.
- Blix, G., sulphur-containing lipin of brain cerebrosulphuric acid, A., 967.
- Blix, R. See Aminoff, G.
- Bloch, Alfred, Liebermann-Burchard colour reaction with cholesterol, A., 271.
- Bloch, Armand. See André, E.
- Bloch, A. M. See Newitt, D. M.
- Bloch, E. See Bloch, L.
- Bloch, F., scattering power of many-electron atoms, A., 443. Conservation theorem in the theory of metals, A., 1225.
- Bloch, L., and Bloch, E., structure of the principal Raman line of benzene, A., 764. Spark spectrum of copper between 400 and 240 Å., A., 879. Spark spectrum of iron in the extreme ultraviolet, A., 1221.
- Bloch, E., and Farineau, J., spark spectra of copper, silver, and gold between 1300 and 300 Å., A., 2.
- Bloch, O., uses of dyes in photography, B., 173. Recent developments in infra-red photography, B., 988.
- Bloch, Z. S. See Viktorov, P. P.
- Blochinzev, D., and Nordheim, L., theory of anomalous magnetic and thermoelectric effects in metals, A., 893.
- Block, D. J., and Apollo Metal Works, chromium-plating process, (P.), B., 112.
- Block, H. H. See Amer. Magnesium Corp.
- Block, N. See Böttger, W.
- Block, R. J., continuous extractor, A., 586.
- and Cowgill, G. R., antineuritic vitamin. IV. Preparation of a highly potent concentrate, A., 99.
- See also Jackson, R. W.
- Blodgett, C. A., and Eastern Manufg. Co., purification and bleaching of cellulose materials, (P.), B., 264.
- Blodgett, F. M., Mader, E. O., Burke, O. D., and McCormack, R. B., total amount of copper applied and ratio of lime to copper in Bordeaux mixture as important factors in potato spraying, B., 565.
- Bloem, T. F., relative value of clinical blood-tests, A., 622.
- Blohm, M. See Hüchel, W.
- Blok, T., influence of culture plants, mineral fertilisation, and acidity on the C:N ratio in soil and on the composition of the soil humus, B., 1073.
- Blom, A. V., solid properties and structure of cellulose nitrate films, A., 22. Water-resistant coatings, B., 156. Chlorodiphenyl resins ["arochlors"] in nitrocellulose lacquers, B., 719.
- Blome, W. H. See Bliss, A. R., jun.
- Blomfield Engineering Co., Ltd., and Dnrant, H. T., filter-presses, (P.), B., 656.
- Blomquist, A. T., and Marvel, C. S., reactions of substituted divinylacetylenes, A., 591.
- Blondel, F., average recovery of copper from cupriferous minerals, A., 483.
- Bloom, A. See Ferrante, J.
- Bloomfield, A. L., functional testing of chemical plant: theoretical aspects, B., 128.
- Bloomfield, G. F., Farmer, E. H., and Hose, C. G. B., olefinic compounds. II. Orienting influence of the carboxyl group, A., 933.
- Bloomfield, J. J., and Isbell, H. S., presence of lead dust and fumes in the air of streets, automobile repair shops, and industrial establishments of large cities, B., 574.
- Bloomquist, C. R. See Froemke, J. A.
- Bloor, W. R. See McQuarrie, I., and Snider, R. H.
- Bloore, R. B. See Alcock, V. G. H.
- Bloos, V. See Jahn, F. K.
- Blotner, H., change produced in the fat tissue by insulin in malnutrition, A., 1190.
- Blott, J. F. T. See Colas Products, Ltd.
- Blount, B. K., aromatic tropene derivatives. I. Derivatives of 8:9-benz- $\Delta^{8,9}$ -homogranatene, A., 729.
- and Robinson, R., isobenzopyrylium ferri-chloride, A., 719.
- See also Borsche, W.
- Blount, H. See Electrical Research Products, Inc.
- Blow, J. J. See Robinson & Sons, Ltd.
- Blue, R. D., and Mathers, F. C., electrodeposition of metals and alloys from formamide solutions, A., 914.
- Blue, R. W. See Glaucque, W. F.
- Blum, F., catechins, A., 643.
- Blum, H., crystal structure of anhydrous magnesium and calcium iodides, A., 1003.
- See also Trautz, M.
- Blum, J. L., and Schlesinger, (Mlle.) I., acid tars obtained in refining petroleum derivatives [with sulphuric acid], B., 773.
- Blum-Bergmann, O., synthetic substances with oestrogenic activity, A., 1049.
- Blumberg, H., Klein, Henry, and McCollum, E. V., spectrographic analysis of teeth of rats on diets containing fluorine, A., 1199.
- Blumberger, J. S. P., azo-chromophore. V., A., 946.
- Blume, H. See Seek, W.
- Blumenfeld, J., preparation of titanium oxide, (P.), B., 189.
- and Krebs Pigment & Color Corp., preparation of titanium hydroxide, (P.), B., 105.
- Mayer, M., and Krebs Pigment & Color Corp., preparation of titanium pigments, (P.), B., 928.
- and Verein für Chem. & Met. Prod., separation of titanium dioxide hydrate from hydrolysable solutions of titanium salts, (P.), B., 189.
- Blumenthal, B., lead-tin bronzes, their constitution and use as bearing metals, B., 510.
- and Hansen, M., effect of cadmium and lead on properties of aluminium, B., 194.
- Blumenthal, M., thermal dissociation of certain oxides and peroxides. V. Magnesium, strontium, and barium peroxides, A., 351.
- Blumer, C., Gordonoff, T., and Reznikoff, L., cholesterol metabolism and chlorophyll, A., 1321.
- Blumer, D. R. See MacDougall, F. H.
- Blunk, H., design of grit chambers, B., 766.
- Blvova, T. See Sokolov, N.
- Blyth, J. F., Ellis, C., and Chadeloid Chem. Co., arsenical insecticides, (P.), B., 760.
- Boake, Roberts & Co., Ltd., A. See Carroll, M. F.
- Boan, R. F., purity of olive oil from canned sardines, B., 604.
- Boas, F., new eosin-effect on plants, A., 1094.
- and Biechle, O., Feulgen's nucleal reaction with plants, A., 105.
- Boas, L. C. See Collens, W. S.
- Boas, W., röntgenographic determination of the solubility of cadmium in zinc, A., 771.
- See also Bleeschmidt, E.
- Bobko, E. V., solubility curves of soil phosphoric acid as a means of determining soil fertility, B., 83.
- and Belvoussev, M. A., importance of boron for sugar beet, B., 1073.
- Bobtelski, M., and Chajkin, L., chemical reactions in concentrated electrolytes. XIV. Reaction between vanadic acid and hydrogen bromide, and the effect on it of acids, salts, and catalysts (2), A., 33.
- and Cohn, R., regularities in acid and salt effects in alcoholic aqueous solutions. II. Oxidation of ethyl alcohol by chromic acid, A., 356.
- Bocciarelli, D., radioactivity of potassium, A., 995.
- Bochvar, A. A., structure of ternary eutectics, A., 220. Diagram of state of fused salts of lithium, A., 228. Determination of the linear speed of transformation of austenite into pearlite, A., 233. Prevention of recrystallisation by preliminary short annealing, B., 109.
- and Gorey, K. V., structure of hyper- and hypo-eutectic alloys, A., 220.
- and Maurakh, A. A., coefficients of linear expansion of antifriction metals, B., 391.
- and Merkurjev, N. E., recrystallisation of mixed crystals rich in tin, A., 219.
- and Potapova, A. M., determination of tin in babbitt metal by reduction with zinc, B., 1061.
- and Velitschko, I. P., diagram of state of magnesium-zinc alloys, A., 219.
- Bochvar, A. M., Borin, F. P., and Yoselevich, M., prevention of liquation in white anti-friction alloys by addition of nickel, B., 194.
- Bock, A. von, development of rancidity in linseed oil, B., 353.
- Bock, A. V., Dill, D. B., and Edwards, H. T., lactic acid in the blood of resting man, A., 295.
- Bockelmann, O., relationship between ovarian function and calcium metabolism; effect of oestrin, A., 869.
- Bockemüller, W., detection and determination of fluorine in organic compounds, A., 172. Fluorination of organic compounds. III. Action of fluorine on organic compounds, A., 1139.
- Bodansky, A., paradoxical increase of phosphatase activity in preserved serum, A., 316. Phosphatase. I. Determination of inorganic phosphate; Beer's law and interfering substances in the Kuttner-Lichtenstein method. II. Determination of serum-phosphatase, A., 316, 863.
- See also Jaffe, H. L.
- Bodansky, M., hæmolytic action of fatty acids, A., 82.

- Bodansky, O. See Bakwin, H.
- Bodendorf, K., percinamic acid, A., 272. Unsaturated peroxides; [mechanism of] oxidation processes, A., 279. Constitution of potassium antimonyl tartrate and related antimony compounds, A., 1021. Inhibitor actions, A., 1295.
- and Koralewski, G., mechanism of the condensation between amines, formaldehyde, and ketones, A., 401.
- Bodenstein, M., chain reactions, A., 129. Are traces of water really necessary for the occurrence of many reactions? A., 575, 788.
- and Schenk, P. W., photochemical kinetics of reaction between chlorine, hydrogen, and oxygen, A., 577.
- See also Bernreuther, F.
- Bodmer, A., 'non-shrink' finish [for fabrics] by "sanforising" process, B., 425.
- Bodnár, J., and Barta, L., drying and fermentation of tobacco. III. Do ammonia, methylamine, and pyridine arise from nicotine during fermentation? A., 1344.
- and Karell, A., phosphorylation and phosphatase action in avitaminosis-B, A., 1090.
- Boeckeler, B. C. See Carlsmith, L. E.
- Boecker, C., variation with angle of emission of the radiation from metals bombarded with slow electrons, A., 549.
- and Mohler, F. L., scattering of electrons by ions and mobility of electrons in a caesium discharge, A., 550.
- Boecler, A., solvent-recovery device for spreading, coating, lacquering, or impregnating machines, (P.), B., 400.
- Boeder, P., method for determining diffusion constants of colloids which show mechanical birefringence, A., 224.
- Bödtker-Næss, G., and Hassel, O., atomic distances in Werner's co-ordinated compounds. II. Hexammine and hexamethylamine halides of  $\text{Co}^{II}$  and  $\text{Ni}^{II}$  of the fluorite type, A., 450. Effective radii of hexammine cations  $[\text{M}(\text{NH}_3)_6]^{+}$  in crystals of fluorspar type, A., 1234.
- Böeseken, J., oxidation of phenol with peracetic acid, A., 154. Cellulose from the viewpoint of organic chemistry, A., 380. Spirans, A., 1303.
- and Schneider, C., action of peracetic and perbenzoic acids on unsaturated aliphatic and aromatic iodine compounds, A., 143.
- and Slooff, G., formation of cyclic compounds of pyrocatechol with aldehydes and ketones, A., 511.
- Slooff, G., Hoefelman, J. M., and Hirsch, H. E., action of cyclopentanol-2-carboxylic acids on the electrical conductivity of boric acid; mobility of the cyclopentane ring, A., 1292.
- and Soesman, A. L., product of oxidation of styryl methyl ketone by peracetic acid, A., 1297.
- Tellegen, F., and Henriquez, P. C., derivatives of dioxan, A., 73, 511.
- Boegehold, A. L., and Gen. Motors Research Corp., cupola furnace, (P.), B., 552.
- See also Williams, H. M.
- Böhm, E., preservatives in cosmetics, B., 1083.
- Böhm, F., effect of anterior pituitary hormone on blood-sugar, A., 1086.
- Boehm, G., X-ray diagram of nerves, A., 313.
- Boehm, G., and Weber, H. H., Röntgen diagram of stretched myosin threads, A., 14.
- Boehme, W. See Tammann, G.
- Böhme Akt.-Ges., H. T., primary alcohols, (P.), B., 11. Artificial silk, films, etc., (P.), B., 14. Aldehydes, (P.), B., 139. Carbonyl compounds [ketones and aldehydes], (P.), B., 182. Alcohols, (P.), B., 182. Sulphuric acid esters of glucosides, (P.), B., 246. Significance of the fatty-acid carboxyl group in textile-aid industry, B., 314, 555. Tetrahydrofuryl alcohol, (P.), B., 379. Liquids or plastic preparations used for treatment of fibrous materials, (P.), B., 617. Impregnating baths and printing colours containing arylides of 2:3-hydroxynaphthoic acid, (P.), B., 783. Liquid or plastic preparations for treatment of fibrous materials [wetting, cleansing, foaming, or dispersing agents], (P.), B., 822.
- Boehmer, N. See Van Schaack, R. H., jun.
- Boehringer & Söhne, G.m.b.H., C. F., compositions, films, etc., from primary acetylcelluloses, (P.), B., 264. Preparation of fibrous cellulose acetates, (P.), B., 301. Cellulose esters, (P.), B., 825. Preparation of fibrous cellulose esters, (P.), B., 860. Manufacture of cellulose esters, (P.), B., 860. Anhydrides of fatty acids, (P.), B., 904.
- Boekenooogen, H. A., cameline oil, B., 398.
- See also Ruzicka, L.
- Boeker, G. F., diamagnetism of carbon tetrachloride, benzene, and toluene at different temperatures, A., 664.
- See also Wills, A. P.
- Boekhorst, L. C. J. de. See Cohen, E.
- Bömer, A., fats, B., 154.
- and Rintelen, P., carbon dioxide treatment of [plants] in field soils, B., 321.
- Boenheim, F., and Heimann, F., anterior pituitary hormone, which regulates fat metabolism, in "Inkretan," A., 869.
- Boente, L. See Hofmann, F.
- Böttger, S. See Spengler, O.
- Böttger, W., recent analytical methods for steelworks, B., 231.
- Block, N., and Michoff, M., utility of the mercury cathode, A., 1024.
- and Schall, B. M., potentiometric silver-halogen titration with indifferent electrodes, A., 920.
- Boeuf, A. P., elasticity and strength of concrete, B., 467.
- Bogdan, M. See Volmer, M.
- Bogdandy, S. von, Polanyi, M., and Veszi, G., "molecule mixer" for preparation of colloids and hydrogenation with atomic hydrogen, B., 127.
- Bogdanov, G. M. See Orlov, N. N.
- Bogdanov, I. F. See Razuvaiev, G. A.
- Bogdanov, M. I., nitration with oxides of nitrogen, B., 696.
- Bogdanov, S. V., structure of the hydrogen sulphite compound of nitroso- $\beta$ -naphthol, A., 389.
- Bogen, E., and Loomis, R. N., tobacco tar: alleged carcinogenic action, A., 421.
- Bogert, M. T., structure of vitamin-A and synthesis of ionenes, A., 153. Mechanism of the ionene synthesis, A., 599. Synthesis of phenanthrene and its derivatives, A., 601.
- and Conklin, R. B., synthesis of acenaphthene-*peri-m*-thiazines and of dyes derived therefrom, A., 617.
- Bogert, M. T., and Conklin, R. B., constitution of acenaphthenesulphonic acids, A., 943.
- and Davidson, D., oxidation colours derived from 5:6-diaminouracil, A., 166. Preparation of 5-aminouracil and derivatives, A., 616.
- and McDonough, E. G., autoxidation of aldehydes, A., 1249.
- and Marion, S. J., volatile oil of *Sarothra gentianoides*, L., and detection therein of *n*-nonane, A., 1216.
- and Roblin, R. O., jun., formation of cyclic acetals from aldehydes or ketones and alkylene oxides, A., 1141.
- and Stamatoff, G. S., synthesis of alkylphenanthrenes and alkylphenanthrene-10-carboxylic acids by the Pschorr reaction, A., 948.
- Boggs, W. B., Anderson, J. N., and Westwood, R. J., anode department of the Noranda smelter, B., 792.
- Bogitch, B., reduction and oxidation of manganese silicates, A., 361. Use of diaphragms in industrial electrolysis of metals, B., 67. Electrothermic separation of lead and zinc, B., 153. Roasting of sulphides, especially nickel matte, B., 470. Use of hot blast in smelting minerals in a water-jacket[ed furnace], B., 872.
- Bogod, M. See Lampitt, L. H.
- Bohn, R. M., wheat flour diluent, (P.), B., 1033.
- Bohnen, E. J., and Standard Oil Co., lubrication of high-temperature equipment for cooking food, (P.), B., 616.
- See also Standard Oil Co.
- Bohner, H., anti-corrosive effect of addition of water-glass to bromine water, chlorine water, or bleaching-powder solutions, A., 39. Autogenous welding of aluminium and its alloys, B., 552. So-called induction period in the age-hardening of duralumin. II., B., 922.
- Bohr, N., stability of the atom and laws of conservation, A., 996.
- Bohrisch, P., treatment of hyperacidity, A., 303.
- Bohstedt, G., calcium and phosphorus supplements feeding of farm animals, B., 986.
- See also Kozelka, F. L.
- Boidin, A., report of Committee [of the Society of Leather Trades' Chemists] on bating phenomena, B., 642.
- See also Effront, I. A.
- Boinot, F. See Usines de Melle.
- Boiron, J. See Roussacroux, A.
- Bois, E. See Risi, J.
- Boisselet, Deullin, and Ballet, action of superheated steam on cylinder oil, B., 375.
- and Kryloff, electrical determination of sulphur in mineral oils, B., 374.
- and Mouratoff, ageing products of mineral oils, B., 375.
- Bojanovsky, R., cellulose-decomposing bacteria requiring iron, A., 753.
- Bojanowski, J., tar emulsions and their applications, B., 1042.
- Bojner, G., apparatus for carrying out heat-exchange processes, (P.), B., 2.
- Bokelmann, O., relation between ovarian function and calcium metabolism, A., 1211.
- and Scheringer, W., glycogen and fat content of liver in pregnant albino rats; carbohydrate metabolism in pregnancy, A., 853.



- Bokenkroger, W., filter for gaseous substances, (P.), B., 289.
- Bokinik, J. I., and Iljina, (Frl.) Z., hypersensitisation. III. Influence of silver ions on the spectral sensitivity of dyed [sensitised] silver bromide plates [emulsions], A., 35.
- Bokor, R., micro-flora of szik and alkali soils in relation to amelioration, B., 1027.
- Bokrétság, A. See Jendrassik, L.
- Bolam, T. R., and Bowden, G., ionic interchange in sulphur sols. I., A., 24.
- and Donaldson, W. J., influence of lyophilic colloids on precipitation from solution; gelatin and silver chromate. III., A., 1011.
- and Muir, J. J., ionic interchange in sulphur sols. II., A., 1011.
- Bolcato, V., mannitic fermentation of levulose: possible mechanism, A., 1333.
- Boldyrev, E. B., and Stewart, J. F., vagus control of pancreatic function; experimental insulin resistance, A., 192.
- Gastric secretion caused by insulin, A., 192.
- Boleracki, P. See Rice, E. W.
- Bolgarsky, M., magnetite-bearing quartzites of Man and neighbourhood (Ivory Coast), A., 1030.
- Bolland, C. B., and Cobb, J. W., reactivity of cokes at low temperatures to oxygen and carbon dioxide, B., 577.
- Boller, E. R. See Du Pont de Nemours & Co., E. I.
- Boller, R., and Ueberrack, K., insulin and alimentary hyperglycaemia, A., 322.
- See also Falta, W.
- Bolles, S. R., and Standard Oil Development Co., treatment of hydrocarbons, (P.), B., 854.
- Bolliger, A., and Erlam, M. S. S., excretion of sodium thiosulphate during uncomplicated human pregnancy after intravenous administration in large amounts, A., 1072.
- Bollman, H. T. See Hurd, C. D.
- Bolótin, A. See Zilberman, G.
- Bolotov, B. A. See Dolgov, B. N.
- Bolotov, N. P. See Mintz, I. B.
- Boltus-Goruneanu, M. See Dănilă, N.
- Bolz, F. See Noll, A.
- Bolz, K. See Bergel, F.
- Bomke, H. See Rother, F.
- Bomonti, H. F., purging low-grade sugar, using the Oliver "crystal" filter, B., 362.
- Bomskov, C., determination of magnesium in blood with 8-hydroxyquinoline, A., 294.
- Significance of the parathyroid hormone in regulating calcium economy. IV., A., 320.
- Phosphorus compounds of milk, A., 1187.
- and Bremm, H., preparation of a blood-calcium-raising substance from placenta, A., 1208.
- and Falck, J., significance of the parathyroid hormone in regulating calcium economy. V. Substances which raise and lower blood-calcium, A., 1087.
- and Moschinski, G., significance of the parathyroid hormone in regulating calcium economy. II. and III., A., 320.
- and Nissen, H., phosphorus fractions in blood of the growing organism, A., 410.
- Organic phosphorus compounds in goat's and mare's milk, A., 1187.
- and Rath, G., vitamin-D and the blood-phosphate curve, A., 434.
- Bonar, F. See Bonar, R.
- Bonar, R., Bonar, F., and Davies, E. C. H., cellophane roll films and fixing of carbon-paper typing on cellophane, B., 423.
- Bonath, R., and Werkspoor N.V., apparatus for heat treatment of sugar solutions either completely or partly crystallised, (P.), B., 568.
- Boncinian, T. See Passerini, M.
- Boneyk, L. See Hunt, H.
- Bond, A. E., decorative rubber compositions, (P.), B., 32.
- Bond, G., transfer of fixed nitrogen from bacterium to host in soya bean, A., 1341.
- Bond, G. R., jun., rapid determination of mercaptans [in gasoline], B., 773.
- Bond, H. A., and Roessler & Hasslacher Chem. Co., temperature control of exothermic reactions, (P.), B., 768.
- Bond, L. See St. John, J. L.
- Bond, M. L., jun., treating oil containing bottom settlings from oil wells, (P.), B., 100.
- Bond, T. A. See Jones, S. E.
- Bond, W. N., perfection of crystal laminae, A., 891.
- Probable values of  $c$ ,  $h$ ,  $e/m$ , and  $a$ , A., 1226.
- Bond, W. R., apparatus for maintaining artificial respiration in laboratory animals, A., 965.
- Bondareva, M. V. See Schukarev, A. N.
- Bonde, W., nitrobenzene poisoning, A., 422.
- Sterilisation of sodium bicarbonate solutions [for injections], B., 604.
- Bondi, A. See Bergmann, E.
- Bondietti, G., and Lions, F., extension of Knorr's pyrrole synthesis, A., 835.
- Bondy, H., and Popper, K., mass spectrometer with directional and velocity focussing, A., 927.
- Bondy, H. P. [with Lauer, G. C.], antioxidants of rubber latex. I., A., 1300.
- Bone, W. A., flame spectrum of carbon monoxide, A., 6.
- Combustion of hydrocarbons, A., 469.
- Photographic analysis of explosion flames, A., 572.
- Phosphoric anhydride as drying agent, A., 927.
- Influence of electrical and magnetic fields on "spin" in gaseous detonations, A., 1016.
- Newitt, D. M., and Townend, D. T. A., gaseous combustion at high pressures. XIV. Explosions of hydrogen-air and carbon monoxide-air mixtures at initial pressures up to 1000 atmospheres, A., 231.
- Bong, E., Hilgenberg, L., and Junkersdorf, P., influence of unphysiological nutrition on the composition of the organs and on metabolism. III. Diet rich in protein and its hydrolytic products, A., 856.
- Bongrand, J. C., new technique in the rubber industry; [manufacture of "Filastic"], B., 979.
- Bonhoeffer, K. F., and Brown, G. W., exchange of hydrogen between water and hydrogen compounds dissolved in it, A., 1242.
- Farkas, A., and Rummel, K. W., heterogeneous catalysis of para-hydrogen transformation, A., 680.
- See also Bach, F., and Rowley, H. H.
- Boning, K., biology and control of *Sclerotinia sclerotiorum* [Lib.], Massee, in tobacco, B., 840.
- Bonino, G. B., possible mechanism of racemisation and of the Walden inversion, A., 1032.
- and Manzoni-Ansidei, R., Raman spectra of oximes, A., 886.
- Bonino, G. B., Manzoni-Ansidei, R., and Pratesi, P., Raman spectrum of pyrrole and some derivatives, A., 886.
- Bonne, C., productivity of sugar beets as influenced by spacing and inbreeding, B., 804.
- Bonnell, D. G. R., gels. IV. Swelling of silica gel. V. Effect of neutral electrolytes on the syneresis of silica gels, A., 1244.
- Bonneman, See Pascal, P.
- Bonner, J., growth hormone of plants. IV. Mechanism of the action, A., 1094.
- Plant growth hormone, A., 1214.
- See also Thimann, K. V.
- Bonner, L. G. See Bonner, W. D.
- Bonner, T. W., ionisation of gases by neutrons, A., 762.
- Bonner, W. D., Bonner, L. G., and Gurney, F. J., azeotropic hydrobromic acid solutions at pressures of 100—1200 mm., A., 561.
- Bonnett, H. T., and Upson, F. W., action of alkalis on monobasic sugar acids. I. Conversion of gluconic into mannonic and of galactonic into talonic acid by the action of barium hydroxide, A., 490.
- Bonney-Floyd Co. See Gregg, A. W., and Mitchell, H. A.
- Bonnier, C., and Juge-Boirard, G., physical analysis of mixtures of liquid fuel with alcohol or with alcohol and benzene, B., 659.
- Bonnicksen, C. W., coating of [safety] glass and other objects with varnish films, (P.), B., 356.
- Safety glass, (P.), B., 867.
- Bonnot, M. See Portevin, A.
- Bonot, A., modifications of serum-proteins and myxo-protein isolated by the acetone method, A., 82.
- Bonotto, M., refined vegetable product, (P.), B., 938.
- Bonsack, W. See Nat. Smelting Co.
- Bonsiakos, M. N., centrifugal separator, (P.), B., 288.
- Bonsmann, M. R., habituation and accumulation phenomena. II. Phano-dorm, luminal, and prominal, A., 1076.
- Bonstedt, K., relation of cholestenone to cholesterol; cholestenone, the ketone of allocholesterol, A., 390.
- Booher, L. E., concentration and probable chemical nature of vitamin-B<sub>2</sub>, A., 1213.
- Boord, C. E. See Soday, F. J.
- Boorman, E. J., and Linstead, R. P., olefinic acids. X. Formation of lactones from  $\Delta^{\alpha}$ - and  $\Delta^{\beta}$ -n-butenic and -pentenoic acids, A., 934.
- Linstead, R. P., and Rydon, H. N., olefinic acids. IX. Addition of hydrogen bromide to unsaturated acids, A., 934.
- See also Linstead, R. P.
- Boos, W. See Dittrich, K.
- Boot, H., [sand-faced pressed] bricks, blocks, tiles, etc., (P.), B., 21.
- Booth, H. See Clews, F. H.
- Booth, Harris, absorption of cosmical radiation. II., A., 1225.
- Booth, H. S., and Bozarth, A. R., phosphorus fluorochlorides, A., 1130.
- Burchfield, P. E., Bixby, E. M., and McKelvey, J. B., chlorofluoroethylenes, A., 805.
- and Pierce, (Miss) D. G., beryllium. V. Organic compounds of beryllium, A., 267.
- and Smiley, V. D., beryllium. VI. Reactions of sulphur dioxide with organic beryllium compounds, A., 351.

- Booth, H. S., and Swinehart, C. F., fluorination of inorganic halides, A., 130.  
Fluorochlorides of silicon, A., 134.
- Torrey, G. G., and Merlub-Sobel, M., electrolytic deposition of metals [beryllium], (P.), B., 835.
- Booth, J. H. W. See Grant, Julius.
- Booth, R. G., Kon, S. K., Dann, W. J., and Moore, T., seasonal variation in butter-fat. I. Seasonal variations in carotene, vitamin-A, and the antimony trichloride reaction, A., 1087.  
See also Kon, S. K.
- Boots Pure Drug Co., Ltd., Pyman, F. L., and Easson, A. P. T., organic salts of bismuth, (P.), B., 124, 939.
- Pyman, F. L., and Levene, H. H. L., demethylation of alkaloids [harmin and harmaline] containing methoxy-groups, (P.), B., 172.
- Borasio, L., and De Rege, F., "pneumodynamometer" for determining the quality of flour to be used for bread-making, B., 1031.
- Boratynski, K., modifications of phosphorus pentoxide, A., 891.  
and Novakowski, A., modifications of phosphorus pentoxide, A., 450.
- Borchardt, H., and Pringsheim, H., complement of amylases. X. Activation of pancreatic amylase by glutathione, A., 534.  
See also Pringsheim, H.
- Borchers, H., system copper-beryllium, A., 771.
- Bordeianu, C. V., determination of thymol, A., 408. Indirect volumetric determinations, A., 582. Mercury oxycyanide pastilles, B., 445.
- Borden Co. See Schibsted, H., and Stevenson, A. F.
- Bordier, H., production of Merget's phenomenon by arsonvalisation with short waves, A., 900. Continuity of Merget's phenomenon [thermo-diffusion], A., 901. Merget's phenomenon may be produced by vaporisation of solids, A., 901.
- Bordley, J., Hendrix, J. P., and Richards, A. N., composition of glomerular urine. XI. Creatinine in glomerular urine from frogs, A., 849.  
and Richards, A. N., composition of glomerular urine. VIII. Uric acid in glomerular urine of snakes and frogs, A., 849.  
See also Richards, A. N.
- Bordo, J. A., and Mühlendyck, W., causes of wash-oil thickening, B., 418.
- Boresch, K., graphic registration of the transpiration of leaves, A., 1214.
- Boreskov, G. K., calculation of velocity of contact oxidation of ammonia, B., 16.
- Borg, D., and Mack, J. E., sixth spectrum of arsenic, A., 200.
- Borg-Warner Corporation. See Lyman, K. E.
- Borgen, H., and Wadsworth, G. W., [apparatus for] manufacture of margarine, (P.), B., 365.
- Borgen, K. A., desiccants, and rate of evaporation of water, A., 464.
- Borger, G., and Peters, T., chemical biology of growth-promoting substances. I. Enzymes of the extract of the embryo chick, A., 314.
- Peters, T., and Kurz, M., pathological physiology of infarct. I. Content of infarct tissue in reduced glutathione and other thio-groups, A., 852.
- Borghi, B., trypanosomiasis and avitaminosis. I. Rickets and *T. lewisi*. II. Scurvy and *T. brucei*, A., 1072.
- Borglin, J. N., and Hercules Powder Co., purification of rosin, (P.), B., 78, 929, 1021.
- Borgmann, C. W. See Evans, U. R.
- Borgström, L. H., formula of apatite; synthetic sodium fluoride-apatite, A., 252.
- Borin, F. P. See Bocharov, A. M.
- Borisov, I. D., calculation of X-ray spectrographs, A., 340.
- Bork, H. See Kleinmann, H.
- Borkovsky, F. See Kraut, H.
- Born, M., significance of ultra-violet absorption bands of alkali halides, A., 5. Modified field equations with a finite radius of the electron, A., 1097.  
and Blackman, M., fine structure of residual rays, A., 661.  
and Flügge, S., quantum mechanics of diatomic systems, A., 552.
- Born, W. G. See Mohr, J. S.
- Bornand, E., and Schlaepfer, H. A., installation for electrical welding of metals, (P.), B., 71. Casting of metals, (P.), B., 395.
- Bornand, L., and Dumont, (Mlle.) M. R., food analysis and wet oxidation with perchloric acid, B., 987.  
and Sabatay, S., analysis of essential oils, B., 732.
- Bornemann, F., effect of nutrition on root growth, B., 164.
- Bornhofen, O., and Pivovarsky, E., effect of nickel and silicon on growth of cast iron, B., 1059.
- Borodina, I. N., influence of nitrogenous and mineral nutrition on the time of heading in barley and millet with different daylight durations, A., 196.
- Borodulin, M. V., and Belozerskaja, R. G., testing lacquer paints under the conditions of carbon tetrachloride production, B., 798.
- Borodulina, N. A. See Suchorukov, K. T.
- Boronow, P., design and care of pulp strength testing equipment, B., 142.
- Borries, C. von, and Ruska, E., images obtained in the electron microscope of foils transmitting the electrons, A., 761.
- Borsalino-Semeria, A. M. See Dezani, S.
- Borsche, W., and Blount, B. K., constituents of the kawa root. XIII. Substances from technical kawa resin, A., 829.  
and Manteuffel, R., ethyl oxalosorbate and oxalic ester condensations, A., 1034.  
and Niemann, J., constitution of podophyllotoxin and picropodophyllin, A., 162. Podophyllin. III., A., 709.
- Runge, F., and Trautner, W., 2-methoxy- and (?) 2:3-dimethoxy-acridine, A., 1170.
- Borsook, H., and Huffman, H. M., free energies of formation of aqueous *D*-alanine, *L*-aspartic acid, and *D*-glutamic acid, A., 353.  
Huffman, H. M., and Liu, Y. P., preparation of crystalline lactic acid, A., 1276.  
and Keighley, G., energy of urea synthesis, A., 418. Energy of urea synthesis. I. and II., A., 976, 1075. Oxidation-reduction potential of ascorbic acid (vitamin-C), A., 1248.  
and Thimann, K. V., cupric complexes of glycine and alanine, A., 55.  
See also Huffman, H. M., and Schott, H. F.
- Borst, M., Döderlein, A., and Gostimirović, D., sex-physiological studies. X. Conservation of prolactin in urine, A., 1086.
- Borst, W., demonstration of organic phosphorus compounds and of a phosphatase in the mammary gland, A., 83.
- Bortels, H., catalysis of the biological fixation of nitrogen, A., 638.
- Borton, G. W., and Pennsylvania Crusher Co., hammer crusher, (P.), B., 528, 608. Crushing machinery, (P.), B., 688.
- Boruff, C. S., stabilisation of paunch manures and packing-house screenings, B., 646.  
and Abbott, G. B., determination of fluorides in Illinois waters, A., 921.  
and Buswell, A. M., anaerobic stabilisation of sewage screenings, B., 253.  
See also Buswell, A. M.
- Borysiewicz, A. See Malczynski, S.
- Borzykowski, B., [wet] treatment of artificial textile filaments, threads, and similar products, (P.), B., 58.
- Bosch, C., development of high-pressure technique with the growth of the new ammonia industry, B., 367.
- Bosch Akt.-Ges., R., filters for liquid fuels, (P.), B., 3.  
See also Kazenmaier, A.
- Bose, D. M., and Datta, S., absorption centres in crystals containing paramagnetic ions, and mechanism of their light absorption, A., 340.  
and Raha, P. K., new photo-magnetic effect, A., 339.
- Bose, J. P., distribution of sugar in blood of diabetic and non-diabetic Indians, A., 85.
- Bose, P. K., detection of polyhydric phenols, A., 818.  
See also Wieland, H.
- Bosher, J. E. See Newton, W.
- Bosman, V. See Duerden, J. E.
- Bošnjaković, F., and Grumbt, J. A., heat content of liquid ethyl alcohol-water mixtures, A., 119.
- Boss, A. E., and Goodrich Co., B. F., rubber composition [containing lead silicate], (P.), B., 930.
- Bossányi, I. See Kiss, A. von.
- Bosse, Y. von, and Richter, Kurt, forming thin metallic films by cathode disintegration, (P.), B., 474.
- Bossert, T. W., and Aluminum Co. of America, controlling grain growth in aluminium-manganese alloys, (P.), B., 593.
- Bosshard, M., aluminium-manganese alloys rich in aluminium, B., 922.
- Bossuet, R., photographic sensitivity of lines of alkali metals in the oxy-acetylene flame, A., 363. Alkali metals in minerals, A., 692.
- Bost, R. W., and Baker, H. R., reactions of tin tetra-*p*-tolyl, A., 519.  
and Conn, M. W., behaviour of trimethyl-ene sulphide in heptane and naphtha, A., 696.
- Bostock, J. See Sippe, C.
- Bostroem, T. J. See Sendzimir, T. K.
- Bosurgi, G., jams or jellies, (P.), B., 283.  
and Fiedler, K., elimination of bitter substances from the fibre of pectin-containing plant materials in general and particularly from the peel of acid fruit, B., 365.
- Boswell, M. C., reduction of sulphur dioxide, (P.), B., 703.

- Bosworth, R. C., adsorption. I. Adsorption of carbon dioxide, sulphur dioxide, and water. II. Adsorption of lower fatty acids, A., 121.
- Botha, P. S. See Duerden, J. E.
- Bothe, W., ultra-corpuseular radiation, A., 995.  $\alpha$ -Particles, artificial nuclear transformation and excitation, isotopes, A., 995.
- and Klarman, H., artificial transformation of magnesium with polonium  $\alpha$ -rays, A., 994.
- Botschwar, A. A. See under Bochar, A. A.
- Botset, H. G., radon content of soil gas, A., 1269.
- See also Wyckoff, R. D.
- Bott, P. A. See Swingle, W. W.
- Bottechia, G., volume contraction in mixtures of nitrobenzene with benzene and with chloroform, A., 1110.
- Bottena, J. A., and Jaeger, F. M., law of additive atomic heats in intermetallic compounds. IX. Compounds of tin and gold, and of gold and antimony. X. Silver and gold, A., 18.
- See also Jaeger, F. M.
- Bottenberg, W., construction and operation of a coreless vacuum induction furnace, B., 1064.
- See also Bardenheuer, P.
- Bottini, E., mineral nutrition of plants, A., 198. Determination of fertiliser requirements of soils, B., 359.
- Bottini, O., influence of cation exchange on capillary rise of water in soil, A., 21. Relations between chemical composition of soil and that of its colloidal contents, B., 725. Polar or exchange adsorption in soil. I. Adsorption as a function of the nature of the cations which are exchanged, B., 725.
- Bottoms, R. R., and Helium Co., extraction of helium [from natural gas], (P.), B., 227. Extracting helium from gaseous mixtures, (P.), B., 704.
- Bottrell, H. T., and Repulo, Inc., rodent-repellant and insecticidal composition, (P.), B., 606.
- Botvinkin, O. K., and Golba, T. E., reaction:  $\text{NaCl} + \text{NaHSO}_4 + \text{SiO}_2 = \text{Na}_2\text{SiO}_3 + \text{SO}_2 + \text{HCl}$  [in glass manufacture], B., 748.
- See also Kitaigorodski, I. I.
- Bouat, A. See Maume, L.
- Bouchard, J., inhibitive action of organic substances on fluorescence of uranine, A., 554.
- See also Achard, C., and Boutaric, A.
- Boucher-Firly. See Fontaine, M.
- Bouchonnet, A., Trombe, M., and Petitpas, (Mlle.) G., nitration of cellulose, A., 939, 1038.
- Boudy, L., leather substitutes, (P.), B., 277.
- Bougault, J., Hardy, Z., and Pinquet, (Mlle.) A., influence of sodium borate on the reaction between alkali cyanides and reducing sugars, A., 680.
- and Leboucq, J., determination of hydroxymethyl derivatives of amides and carbamides with Nessler's reagent, A., 494.
- Bougy, E., chemistry of beetroot hybrids, A., 1340.
- Bouillard, A. See Hadnagy, Z.
- Bouillenne, M., and Bouillenne, R., soluble sugars in *Mercurialis perennis*, L., A., 1342.
- Bouillenne, R. See Bouillenne, M.
- Bouillot, J., and Leulier, M., camphor-carboxylates of the alkaloids, A., 961.
- Bouin, M., simplified molecular constant and pathological milks, B., 650.
- Bouisset, L., and Soula, C., solubility of tissue-lipins in glycerol, A., 297.
- Bouknight, J. W. See Simons, J. H.
- Boulad, J. H., conductometric method of titrating potassium, A., 1261.
- Boulanger, (Mlle.) J. See Chauvenet, E.
- Boulanger, P., and Warembourg, H., determination of protein in blood-serum by oxidation, A., 409.
- See also Polonovski, Michel.
- Boulez, V., analysis [determination of hydroxy-acids] of oleines and stearines, B., 75.
- Boulton, J., Delph, A. E., Fothergill, F., and Morton, T. H., quantitative research on dyeing of viscose yarns, B., 744.
- Boulton, Ltd., W., and Breeze, E. M., filter-presses, (P.), B., 657.
- Boulygo, V., copper deposit at Devdorak, A., 1030.
- Boulzaguet, A., and Friess, J., rotatory power of Autun shale oil, B., 135.
- Bouma, P. J. See Ornstein, L. S.
- Boundy, R. H. See Grebe, J. J.
- Bouquet, M., apparatus for separation of granular materials, (P.), B., 3. Apparatus for sizing granular materials, (P.), B., 129.
- Bourbon, A., vulcanisation of rubber in concentrated solution in presence of ultra-accelerators, B., 158.
- Bouree, and Raymond-Hamet, action of gastric juice and pancreatic juice on trypsin coated with fatty acid, A., 427.
- Bouree, P., evaluation of areca nut, B., 1035.
- Bourdelle, M. J., determination of a single-value constant of soils, B., 242.
- Bourdouil, (Mlle.) C., relation between starch synthesis and weight of seeds of *Pisum* hybrids, A., 196. Carbohydrate character of the first generation of pea hybrids, A., 1092. Comparative germination of varieties of pea, A., 1340.
- Bourgeois, E., and Henrion, J., reactions of bromonitro-derivatives of toluene with sodium thiophenoxide, A., 270.
- Bourgin, D. G., velocity of sound in an absorptive gas, A., 217.
- Bourguet, M., applications of the Raman effect to organic chemistry, A., 998.
- Bourguignon, G., classification of different ions in natural chemical groups by their vasomotor action in trans-cerebral di-electrolysis, A., 91.
- Bourion, F., and Hun, (Mlle.) O., cryoscopy of paraldehyde, acetone, and ether in solutions of ammonium and magnesium sulphates, A., 347. Cryoscopic determination of hydration of ions of sodium chloride, A., 673.
- and Rouyer, E., cryoscopic determination of hydration of ions of potassium chloride, A., 566. Cryoscopic determination of hydration of ions of ammonium chloride, A., 777.
- Rouyer, E., and Hun, (Mlle.) O., cryoscopic determination of hydration of ions in solution, A., 460.
- Bourn, W. S., ecological and physiological studies of certain aquatic angiosperms, A., 326.
- Bourne, G., vitamin-C in the adrenal gland, A., 872.
- Boury, M. See Hinard, G.
- Bousman, S. I., and Dorr Co., Inc., sedimentation device, (P.), B., 848.
- Bousman Manufacturing Co. See Hills, J. H.
- Boutaric, A., influence of saline impurities on osmotic pressure of colloidal solutions, A., 566. Physico-chemical properties of proteins separated from serum by the acetone method, A., 730.
- and Bouchard, J., fluorescence of solutions and gases, A., 887.
- Piettre, M., and Roy, (Mlle.) M., physico-chemical study of flocculation of serum-albumin by resorcinol, A., 966.
- and Ratelade, J., rhythmic precipitation in stretched gels, A., 462.
- and Roy, (Mlle.) M., influence of radiations from radioactive substances on flocculation of colloids, A., 161.
- See also Achard, C.
- Boutet, D. See Le Gavrian, P.
- Boutiron. See Glangeaud, L.
- Boutroux, A., determination of protein by sulpho-chromic oxidation, A., 438.
- Boutry, G. A., gaseous photo-electric cells, A., 248.
- Bouvier, and Shabetai, C. R., action of chloropierin on the pink boll worm of cotton, on cotton seed, on the wheat weevil, and on wheat grain, B., 518.
- Bouwman, J. H. A., and Reith, J. F., determination of iodine in salt-water fish and fish-meal, B., 889.
- Bouyoucos, G., determining combined water and organic matter in soils, B., 34. Rapid method for measuring stickiness of soils, B., 80. Changes in volume occurring when dry soils are wetted with water and with chemical solutions, B., 562.
- Bovalini, E., and Fabris, E., ternary system  $\text{K}_2\text{Fe}(\text{CN})_6\text{-K}_2\text{SO}_4\text{-H}_2\text{O}$ , A., 906.
- Bovard, P. F., and Beckwith, T. D., [preventing slime formation in] paper-making technique, (P.), B., 826.
- Bovet, D., and Demanche, L., urinary antiseptics; antiseptic power of urine after administration of urotropine and its derivatives, A., 1084. Avian paludism: a quinoline derivative acting on schizonts and gametes, A., 1323.
- See also Fourneau, E.
- Bowden, B. V. See Rutherford, (Lord).
- Bowden, F. P., and Moore, T., absorption spectrum of the vitamin-E fraction of wheat-germ oil, A., 987.
- Morris, S. D. D., and Snow, C. P., absorption spectrum of vitamin-A at low temperatures, A., 644.
- and Snow, C. P., ultra-violet absorption spectrum and chemical structure of vitamin-B<sub>1</sub>, A., 99.
- Bowden, G. See Bolam, T. R.
- Bowden, H. See Ridge, B. P.
- Bowden, P., and Moore, T., absorption spectrum of the vitamin-E fraction of wheat-germ oil, A., 543.
- Bowen, A. R., refining of a Burmah crude oil with special regard to the colour-reversion characteristics of the lubricating oil distillates, B., 612.
- Nash, A. W., and Garner, Frederick Horace, knock-rating of heptene-1 ( $\Delta^4$ -heptene), B., 850.
- Bowen, N. L., voglite, isomorphous with wollastonite, A., 368. Crystals of iron-rich pyroxene from a slag, A., 369.
- Schairer, J. F., and Posnjak, E., system  $\text{Ca}_2\text{SiO}_3\text{-Fe}_2\text{SiO}_4$ , A., 465. System  $\text{CaO-FeO-SiO}_2$ , A., 1120.

- Bower, J. See Brit. Celanese.
- Bowers, D. W. See Bowers, E. F.
- Bowers, E. F., Bowers, D. W., and Asbury, C. T., anti-fermentive soldering flux, (P.), B., 432.
- Bowers, H. E., and Goodrich Co., B. F., preservation of rubber, (P.), B., 558. See also Harkins, W. D.
- Bowers, P. C. See Du Pont de Nemours & Co., E. I.
- Bowie, M. A. See Klumpp, T. G.
- Bowie, R. M. See Fox, G. W.
- Bowker, R. C., and Wallace, E. L., influence of  $p_H$  on deterioration of vegetable-tanned leather by sulphuric acid, B., 400.
- Bowley, E. J., and Rubber & Celluloid Products Co., colouring of cellulose plastics, (P.), B., 757.
- Bowman, F. C., and Maas Chem. Co., A. R., trisodium phosphate-sodium nitrate, (P.), B., 828.
- Bowman, O. S., coal-carbonising power plant and method of reducing coal, (P.), B., 339.
- Bowman, R. O. See Bing, F. C., and Oettingen, W. F. von.
- Bowler, W. E., and Newton, J. D., decomposition and movement of herbicides in soils, and effects on soil microbiological activity and subsequent crop growth, B., 404.
- Box, E. R., White, N. W., and Johnson, Matthey & Co., decoration of ceramic products, glass, enamelled iron, etc., (P.), B., 628.
- Boy, G. See Terrolne, E. F.
- Boyce, A. M., mortality of *Rhagoletis completa*, Cress., through ingestion of solid materials, A., 186.
- Boyce, D. H. See Wehmhoff, B. L.
- Boyce, J. C., Menzel, D. H., and Payne, (Miss) C. H., forbidden lines in astrophysical sources, A., 881. See also Ladenburg, R.
- Boyd, E. M., differential lipin analysis of blood-plasma in normal young women, A., 845. Lipin content of white blood-cells in normal young women, A., 1064. See also Reed, G. B.
- Boyd, N. C., and Hercules Powder Co., loading of high-explosive shells, (P.), B., 46.
- Boyd, R. N. See Snelling, W. O.
- Boyd, T. A. See Lovell, W. G.
- Boyd, T. C., and Ganguly, H. D., lead in urine, A., 413. See also Stewart, A. D.
- Boyd, W. C. See Hooker, S. B.
- Boyden, B. L. See Stone, W. E.
- Boye, E. See Heymann, E.
- Boyer, L. See Roussac, A.
- Boyer, R. See Allen, C. F. H.
- Boyer, S. See Gen. Electric Co.
- Boyer, W. C. See Monkowitz, R. C.
- Boyard, E., colloidal solutions of 1:2:5:6-dibenzanthracene, A., 123. Glutathione and vitamin-C in tumour tissue, A., 851. Tissue metabolism. I. Vitamin-B<sub>1</sub> and the co-enzyme of lactic dehydrogenase. II. Inhibition of lactic dehydrogenase by derivatives of carcinogenic compounds, A., 852, 862.
- Boyle, C., and Ryan, J. J., grass silage, B., 1083.
- Boynton, A. J., and Brassert & Co., H. A., apparatus for cleaning gases, (P.), B., 657. See also Andrews, C. W.
- Boynton, R. E., and Greisheimer, E. M., individual variation in serum-calcium in normal men and women, A., 294. Serum-calcium in relation to menstruation in cases with dysmenorrhœa, A., 304.
- Bozarth, A. R. See Booth, H. S.
- Bozarth, W. H., and Osborn Products, Inc., dehydration of vegetables, etc., (P.), B., 1034.
- Bozel-Malétra Société Industrielle de Produits Chimiques, preparation of chromates and dichromates, (P.), B., 914.
- Bozhenko, A. See Goldovski, A.
- Božić, B. See Pivovarsky, E.
- Bozorth, R. M., ferromagnetic anisotropy of single crystals, A., 217. and Pauling, L., crystal structure of magnesium platinocyanide heptahydrate, A., 1107.
- Braasch, A. See Braasch, H.
- Braasch, H., and Braasch, A., yeast, (P.), B., 889.
- Braaten, E. O. See Burton, E. F., and Harrington, E. L.
- Brabender, C. W., farinograph [method] for predicting most suitable types of American export wheats and flours for mixing with European soft wheats and flours, B., 167.
- Bracaloni, C. L. See Vita, M. G.
- Brace, P. H. See Westinghouse Electric & Manufg. Co.
- Bracewell, R., waterproofing mixture, (P.), B., 16.
- Brackenbury, J. M., and Upson, F. W., preparation of the free acids and abnormal lactones of the monobasic sugar acids, A., 808.
- Brackett, F. P. See Forbes, G. S.
- Brackett, F. S., and Johnston, E. S., functions of radiation in physiology of plants. I. Methods and apparatus, A., 196. and Liddell, U., progressive relationships in near infra-red absorption spectra of halogen derivatives of benzene, A., 113. See also Hoover, W. H.
- Bradbury, N. E. See Young, L. A.
- Braddick, H. J. J., and Ditchburn, R. W., absorption of light in caesium vapour, A., 200.
- Braddock-Rogers, K., and Krieger, K. A., Bunsen's method [of analysis of oxides]; new apparatus, A., 1133.
- Bradfield, A. E., Penfold, A. R., and Simonsen, J. L., constitution of eremophilone and of two related hydroxy-ketones from wood oil of *Eremophila Mitchellii*, A., 71. Essential oil from wood of *Eremophila Mitchellii* (Bentham), B., 445.
- Bradford, B. W., wide-range variable gas flow-meter, A., 586. Finch, G. I., and Prior, (Miss) A. M., coil ignition of explosive gaseous mixtures, A., 469.
- Bradford, S. C., Liesegang rings, A., 122. Equation of state of real fluid, A., 560.
- Bradley, A. J., and Jay, A. H., quartz as a standard for accurate lattice-spacing measurements, A., 891. and Jones, (Miss) P., X-ray investigation of copper-aluminium alloys, A., 454. and Roussin, A. L., X-ray study of porcelains and their relation to mullite, B., 147.
- Bradley, C. E., Mason, C. D., and Mishawaka Rubber & Woolen Manufg. Co., composition for waterproofing leather, (P.), B., 482.
- Bradley, G., and Marsh, J. K., system anthracene-phenanthrene, A., 782.
- Bradley, H., testing instrument for boot and shoe materials, B., 400.
- Bradley, L., and McKeefe, E. P., chemical pulp, (P.), B., 664.
- McKeefe, E. P., and Bradley-McKeefe Corp., [wood] pulp, (P.), B., 14, 502. Pulp, (P.), B., 502, 620, 861, 912, 1003. Pulp and paper, (P.), B., 1003.
- Bradley, R. S., theory of adsorption of gases on solids, A., 20. Colvin, J., and Hume, J., reactions in solids; comparison of methods of deriving the energy of activation, A., 130.
- Bradley, T. F., [coating] compositions containing nitrocellulose, (P.), B., 478. Composition for coating, decorating, and printing wood, metal, paper, cloth, and other surfaces, (P.), B., 800. Grease-resistant [glassine] paper, (F.), B., 911. and Amer. Cyanamid Co., wrinkled-finish coating, (P.), B., 755. Polyhydric alcohol-polybasic acid resin, (P.), B., 756. and Chadeloid Chem. Co., finish remover, (P.), B., 1020. and Ellis Foster Co., ester resin product, (P.), B., 756. See also Amer. Cyanamid Co.
- Bradley, W., and Bradley-Fitch Co., balling fine-grained material for sintering, (P.), B., 369.
- Bradley, William. See Imperial Chem. Industries.
- Bradley, W. E. See Stewart, T. D.
- Bradley, W. M. See Foote, H. W.
- Bradley-Fitch Co. See Bradley, W., and Kobe, K. A.
- Bradley-McKeefe Corporation. See Bradley, L.
- Bradley Pulverizer Co. See Gibson, W. A.
- Bradshaw, B. C. See Jones, G.
- Bradshaw, F. W., routine control testing [of wood pulp], B., 142.
- Bradshaw, L., improving the water-resistance of casein glues, (P.), B., 932.
- Bradt, W. E., and Crowell, J. H., organic compounds of selenium. V., A., 256. and Green, J. F., organic compounds of selenium. IV., A., 256. See also Crowell, J. H.
- Brady, G. H., and Improved Fire Detector Corp., metal alloy for electric contact terminals, (P.), B., 713.
- Brady, O. L., and Grayson, H. J., isomerism of the oximes. XXXVIII. Constitution of the acetyl derivatives of  $\alpha$ - and  $\beta$ -aldoximes, A., 1050. and Hughes, E. D., co-ordination compounds of 2:2-dihydroxydiphenyl, A., 1158. and Porter, (Miss) M. D., co-ordination compounds of oximes. III. Compounds of 4-oximino-1-phenyl-3-methyl-5-pyrazolone with the alkali metals, nickel, and thallium, A., 957.
- Bräklings, J. See Zipt, K.
- Bragagnolo, G., identification of egg in food pastes, B., 569.
- Bragg, G. A. See Koppers Co. of Delaware.
- Bragg, (Sir) W., crystals of the living body, A., 624. Focal conic structures, A., 1105.
- Bragg, W. L., structure of alloys, A., 771. X-Ray microscope, A., 1026.

- Brahmachari, P., Banerjee, R., and Brahmachari, U., chemotherapy of quinoline compounds. IV. Action of quinoline compounds on *Paramecia*, A., 859.
- Brahmachari, U. See Brahmachari, P.
- Braida, A. See Ruff, O.
- Braier, B., influence of adrenaline on nitrogen metabolism and blood-sugar in hypophyseal insufficiency, A., 97. Nitrogen excretion of the hypophysectomised dog after a meat meal, A., 182. Nitrogen metabolism in pituitary insufficiency, A., 1072. Influence of magnesium chloride on the urinary C:N ratio of rats with experimental tumours, A., 1321.
- Brajnikov, B., change in surface of chalk, A., 803.
- Brallier, P. S. See Muggleton, G. D.
- Bramann, W. W. See Forbes, E. B.
- Bramer, H. von, and Eastman Kodak Co., double salts [manganous ammonium sulphate], (P.), B., 147.
- Zabriskie, J. W., and Eastman Kodak Co., hydroquinone [quinol], (P.), B., 906.
- Bramley, A.,  $\beta$ -disintegration, A., 1100. Possibility of the emission of positive electrons from the nucleus by  $\gamma$ -rays, A., 1223.
- Branch, A., carbohydrate common to the group of acid-fast organisms, including the tubercle bacilli, A., 429.
- Branch, G. E. K., Almqvist, H. J., and Goldsworthy, E. C., induced oxidation of anthracene in the autoxidation of benzaldehyde, A., 1252.
- See also Yabroff, D. L.
- Brand, E., and Harris, M. M., aspects of intermediary protein metabolism, A., 975.
- See also Failey, C. F.
- Brand, J. J. F., Pemberton, A. H., and Earle, G. C., vesiculated brick and similar articles, (P.), B., 63.
- Brand, J. O., determination of colour-sensitivity of photographic layers, A., 1026.
- Brand, T. von, carbohydrate metabolism of parasitic protozoa. I. Behaviour of glycogen in cysts of *Amoeba butschlii*, Prowazek, A., 191.
- See also Weise, W.
- Brandenburg, H. See Bünger, H.
- Brandenberger, E. See Ruzicka, L.
- Brander Farbwerke Chemische Fabrik G.m.b.H., and Abel, E. G., silicofluorides [for treating timber], (P.), B., 1009.
- Brandl & Co. Komm.-Ges., devices for determining density of gases, (P.), B., 658.
- Brandly, C. A. See Scott, J. P.
- Brandrup, W., value and limits of the chemical vitamin reaction of cod-liver oil. III. Chemical and biological determination of vitamin-A in cod-liver oil, A., 644. Loss in activity and formation of turbidity in pepsin wines, B., 123. Detection of colophony in tolu balsam, B., 571.
- Brandt, A. See Yaglou, C. P.
- Brandt, D. G., and Doherty Research Co., constant-pressure and -temperature distillation, (P.), B., 530.
- and Foster Wheeler Corp., pipe-still furnace [for oils], (P.), B., 616.
- Brandt, L., and Verein. Stahlwerke A.-G., welding agent, (P.), B., 634.
- Brandwood, J., obtaining parti-colour effects ["spotting"] on textile threads, and on fabrics woven therefrom, (P.), B., 144.
- Branion, H. D., and Smith, J. B., influence of vitamin-D on hatchability and egg production, A., 543.
- See also Guyatt, B. L.
- Brannon, L. W. See Howard, N. F.
- Brantner, H., and Hecht, F., electrolytic micro-determination of lead, A., 1262. Apparatus for micro-electrolysis, A., 1265.
- Bras, G. J. See Seide, O. A.
- Brasefield, C. J., ionisation of argon, neon, and helium by A, Nc, and He atoms, A., 657.
- Brass, K., and Clar, E., trihalides of perylene, A., 57.
- and Eisner, K., colloid-chemical study of a technical, high-molecular azo-dye, A., 23.
- and Fiedler, J., condensation of aldehydes with  $\beta$ -hydroxynaphthoic acid or its anilide and fission of dinaphthylmethanes, A., 73.
- and Kranz, H., colouring matter of acacia wood, A., 103, 162.
- and Kurz, E., attempted preparation of esters of sugars and chloroacetic acid, A., 378.
- and Lauer, C., *o*-dihalogenobenzanthrones and their reactions with sodium sulphide, A., 1297.
- Brassert, H. A., and Brassert & Co., H. A., [reduction] treatment of iron ore, (P.), B., 234. Melting furnace, (P.), B., 673.
- See also Andrews, C. W., Boynton, A. J., Brassert, H. A., Ives, E. L., and Zimmermann, P.
- Brassert-Tidewater Development Corporation, coking of heavy petroleum residues, etc., and cracking of petroleum vapours, (P.), B., 259.
- Brasseur, H., optical properties of carbonates, A., 10. Structure of crystallised platinocyanides, A., 890.
- See also Errera, J.
- Brastow, W. C. See Ogburn, S. C., jun.
- Brata, L., emission of metallic ions from oxide surfaces. I. Identification of the ions by mobility measurements, A., 1098.
- See also Powell, C. F.
- Bratke, O., [aqueous] colour matrix behaving like oil, (P.), B., 596.
- Brattain, W. H., and Becker, J. A., thermionic and adsorption characteristics of thorium on tungsten, A., 441.
- Bratzler, K. See Eucken, A.
- Brauch, F., occupation and insulin action in diabetes, A., 415.
- Braude, F. [with Lindwall, H. G.], condensations of isatin with acetone by the Knoevenagel method, A., 283.
- Brauer, C. F., stencil, (P.), B., 1006.
- Brauer, G. See Zintl, E.
- Brauer, K., and Reiss, H., determination of hardness of water by Wartha's method in case of water high in chlorides, B., 46.
- Braun, A. A., Ivanov, M. F., Ryabinin, A. A., and Orlov, R. N., histological structure of fish skins, B., 438.
- Braun, C. E., preparation of structurally related mono-guanidines, A., 497.
- Braun, E. See Freudenberg, K.
- Braun, F. See Widmer, A.
- Braun, Friedrich, barite, A., 141.
- Braun, H., influence of formaldehyde on various antibody functions, A., 1182.
- See also Röntgen, P.
- Braun, J. von [with Anton, E., Haensel, W., Irmisch, G., Michaelis, R., and Teuffert, W.], decomposition of basic and phenolic diphenylmethane derivatives and synthesis of optically active aromatic compounds. II., A., 1288.
- and Anton, E. [with Kemény, C.], steric hindrance. VIII., A., 1154.
- and Fischer, Friedrich, steric hindrance. VII. Esterification and hydrolysis from the viewpoint of the electronic theory of union, A., 257.
- and Friedsam, A., ease of substitution of aromatically bound hydrogen atoms. II., A., 66.
- and Friehmelt, E., degradation of optically active carboxylic acids by azoimide and sulphuric acid, A., 711.
- Irmisch, G., and Nelles, J., syntheses in the di- and tri-phenyl series. II., A., 1283.
- and Jacob, A., optical isomerism and diminution of blood pressure, A., 1300.
- and Keller, W., synthesis of tetrazole compounds from nitriles, A., 76. Autoxidation of aldehydes in presence of hydrated manganese dioxide, A., 269.
- Mannes, L., and Reuter, M., components of petroleum. II. Preparation of the first homogeneous naphthenic acids, A., 1290.
- and Michaelis, R., tenacity of organic residues. IX., A., 1285.
- and Nelles, J., syntheses of cinnamic acids, A., 1291.
- Braun, K. See Barrenscheen, H. K.
- Braun, O., durability experiments with nitrocellulose lacquers, B., 355.
- Braun, W., and Bleyer, B., analysis of sugar mixtures, B., 761.
- and Kotschopoulos, M., biochemical properties and difference in fermentation of various kinds of molasses, A., 104.
- Braunbek, W., electrical conductivity of mercury at high temperatures and pressures, A., 9. Relation of empirical atomic and ionic radii to the Thomas-Fermi charge distribution in atoms, A., 206. Electrical conductivity of mercury at high temperatures, A., 343.
- Braune, H., and Engelbrecht, G., Raman effect of inorganic halides in the molten and gaseous states, A., 113.
- and Knoke, S., electron diffraction by gaseous sulphur, selenium, and tellurium hexafluorides, A., 658. Diffraction of electrons at some gaseous halides ( $\text{OsF}_8$ ,  $\text{HgI}_2$ ,  $\text{HgBr}_2$ ,  $\text{HgCl}_2$ ), A., 658. Nuclear distances of mercuric chloride, bromide, and iodide, A., 1233.
- Branner, B., characteristics of praseodymium, [um], A., 1237.
- Brauns, F., and Hibbert, H., structure of lignin, A., 394.
- Brauns, O., elimination of pitch trouble [in pulp and paper mills], B., 56.
- Braunsdorf, K., sugar-feeding honey and origin of diastase, B., 331. Caffeine content of infusions of "caffeine-free" coffee, B., 603. Lard [refractometer and iodine values], B., 753.
- and Brinckmeier, H., investigation of eggs, B., 1080.

- Braunstein, A. E., and Heyfetz, P. A., glycolysis in and mitogenetic radiation from blood in experimental carcinoma, A., 526.
- and Severin, B. A., chemistry of mitogenetic radiation. III. Decomposition of creatinephosphoric acid as a source of the radiation, A., 89.
- Braunstein, R., effect of active carbons on flotation of minerals, B., 152.
- Brautlecht, C. A., and Sethi, J. R., flow of paper pulp in pipe-lines, B., 342.
- Bravo, G. A., determination of iron and copper in tanning extracts, B., 598.
- and D'Alberto, A., lakes of vegetable colouring materials, B., 638.
- Bray, G. R. R. See Brit. Thomson-Houston Co.
- Bray, M. W., and Curran, C. E., white papers from southern pines [of U.S.A.]. III. Pulping longleaf pine for strong, easy-bleaching pulp, B., 300. Influence of chemical concentration in the alkaline [wood-pulping processes, B., 824.
- Bray, R. H., and De Turk, E. E., chemical aspects of some Illinois soils as related to their genesis and morphology, A., 253.
- Bray, W. C., and Ramsey, J. B., simultaneous reduction of vanadic acid and oxygen by iodide; induced catalysis of oxygen reactions, A., 789.
- See also Young, H. A.
- Brdička, R., polarographic studies with the dropping mercury cathode. XXXI. Test for proteins in presence of cobalt in ammoniacal ammonium chloride solutions. XXXII. Activation of hydrogen in the thiol group of some thio-acids in cobalt salt solutions. XXXIII. Micro-determination of cysteine and cystine in the hydrolysates of proteins, and the course of protein decomposition, A., 619, 681, 964.
- Breaux, S. J., jun. See O'Neal, A. M.
- Breazeale, J. F., and McGeorge, W. T., nutritional disorders [of plants] in alkaline soils as caused by deficiency of carbon dioxide, A., 653.
- See also McGeorge, W. T.
- Breazeale, W. M. See Slack, F. G.
- Brecht, W., and Helmer, E., chemical determination of wool in papers, B., 824.
- Breddin, H., standardised ergot preparations, B., 171.
- Bredée, H. L., colloid chemistry of the viscose process, B., 300.
- and Bergen, L. A. van [with De Booys, J.], viscosity as a function of the particle size and sol concentration in the case of highly-polymerised substances, A., 460.
- Bredel, F., and Miller, T. D., heating of muffles, retorts, etc., (P.), B., 768.
- Bredemann, G., biological decomposition of *n*-butyric acid. I. Formation and transubstitution of butyric acid in natural fermentative processes, A., 96.
- and Radeloff, H., plant injury by ammonia gas and its detection, B., 85. Smoke injury [to plants] by waste gases containing sulphur dioxide, and its detection, B., 403. Diagnosis of [plant] injury by fluorine fumes, B., 405.
- Bredereck, H., nucleic acids; ring structure of the pyrimidine nucleosides, A., 149. Isomeric dinitrophenylhydrazones, A., 154. Ring structure of ribose in the yeast-nucleic acids, A., 261.
- Bredig, M. A., apatite structure of inorganic bone- and tooth-substance, A., 738.
- See also Franck, H. H.
- Bredtschneider, W., [firing arrangement for] coal-dust furnaces, (P.), B., 131.
- Breen, J. P. See Andrews, A. I.
- Breeze, E. M. See Boulton, Ltd., W.
- Bregman, N. S. See Kitaigorodski, I. I.
- Bregulla, G. See Hesse, E.
- Breindl, H., and Söllner, K., influence of picric acid on the electro-capillary curve of mercury, A., 28.
- Breinl, F. See Haurowitz, F.
- Breipohl, W. See Fühner, H.
- Breirem, K. See Isaachsen, H.
- Breit, G., isotope displacement in hyperfine structure, A., 2. Gamow's treatment of radioactive disintegration, A., 1224.
- and Wills, L. A., hyperfine structure in intermediate coupling, A., 1097.
- See also Johnson, M. H., jun.
- Breith, E. See Pfeiffer, P.
- Breithaupt, T., iron content of used motor oils, B., 376.
- Breitner, S. See Fischer, Hans.
- Brell, W. See Hölzl, F.
- Brelsford, H. E., Snow, N. L., and Diamond Power Specialty Corp., apparatus for separating dust from gases, (P.), B., 449.
- Bremm, H. See Bomskov, C.
- Brémond, P., viscosity of gases at high temperatures, A., 668. Diffusion of gases at high temperatures through porous materials, A., 776.
- Brennecke, R. See Dickens, P.
- Brenneis, H. See Müller, Robert.
- Brenner, B. See Waltenberg, R. G.
- Brenner, P., Sauerwald, F., and Gatzek, W., formation of blowholes in the heat-treatment of age-hardenable aluminium alloys, B., 551.
- Brenner, W., decomposition and synthesis of organic phosphate in the mammary gland, A., 83.
- Brentano, C., relation of creatinuria to muscle-glycogen in man, A., 97. Relationship of muscle metabolism to formation of ketones, A., 974. Relation between muscle metabolism and formation of ketone substances, A., 1324.
- Bresler, S. E., thermal conductivity of colloid systems, A., 901.
- Chariton, J. B., Talmud, B. A., and Talmud, D. L., solvation of molecules and equation of state of adsorption film, A., 900.
- Druschinin, W. W., and Talmud, D. L., two-dimensional reactions. I., A., 672.
- and Talmud, D. L., range of orienting forces and the stability of foams and emulsions, A., 674.
- See also Talmud, D. L.
- Bresser, A., cellulose ester adhesives, B., 619.
- Bresson, A. L. See Culbertson, J. B.
- Breternitz, H., susceptibility of salts of the iron group by a modified Quincke's method, A., 767.
- Bretin, P., Manceau, P., and Rey, J., resorption of potassium by *Penicillium glaucum* growing in Raulin's solution with increasing additions of potassium chloride, A., 428.
- Bretschneider, F. See Hess, E. M.
- Bretschneider, O. See Ruff, O.
- Bretschneider, R. See Eble, K.
- Bretsznajder, S., kinetics of the systems  $\text{CaO-CO}_2$  and  $\text{Cd-CO}_2$ , A., 33.
- See also Zawadzki, J.
- Brett, R. C., Doyle, J. E., and Eagle-Picher Lead Co., reclamation of lead, (P.), B., 793.
- and Eagle-Picher Lead Co., furnace construction [for lead working], (P.), B., 793.
- Breuer, F. W. See Gilman, H.
- Breugnot, V. See Delaby, R.
- Breuil, R. E., complexes of ethylenediamino with ferrous halides, A., 1038.
- Brewer, A. K., effect of ammonia on positive ion emissivity of iron, nickel, and platinum, A., 203.
- and Kueck, P. D., chemical action in the glow discharge. XI. Decomposition of nitrogen dioxide and the nitrogen dioxide equilibrium, A., 1254.
- Brewer, P. H., and Rankin, R. B., electro-dialysis compared with the Neubauer method for determining mineral nutrient deficiencies in soils, B., 882.
- Brewin, W., and Mott, R. A., coke formation. VI. Determination of tar and liquor in the Gray-King assay, B., 771.
- Brewis, J., protecting meat and other perishable commodities from deterioration during storage, (P.), B., 1083.
- Brewster, C. M., and Millam, L. H., phototropic and thermotropic anils from 5-bromosalicylaldehyde, A., 393.
- Brewster, J. F., and Phelps, F. P., preparation of optically stable sugar solutions for colorimetric analysis, B., 647.
- Brewster, O. C., Perry, W. M., and Standard Oil Co., apparatus for treating hydrocarbon oils, (P.), B., 953.
- and Standard Oil Co., distillation of hydrocarbon oils, (P.), B., 456.
- See also Cooke, T. S.
- Brewster, R. Q. See Rarick, M. J.
- Breyer, F. See Suhrmann, R.
- Briand, M., Dumanois, P., and Laffitte, P., influence of temperature on limits of inflammation of combustible vapours, A., 909.
- Brick, R. M. See Phillips, A.
- Bridel, M., and Charaux, C., composition of alder buckthorn bark. I. Enzyme hydrolysing water-soluble anthraquinone glucosides. II. Precipitate obtained by enzymic action; emodin and frangulin, A., 877.
- and Kramer, A., identity of asobotoxin with phloridzin, A., 878.
- Bridge, F., laboratory analysis of fibrous materials, B., 423.
- Bridge, J. F. See Hatfield, W. H.
- Bridge & Co., Ltd., D. See Drakeley, T. J.
- Bridgeman, O. C., and Quersfeld, D., solubility of ethyl alcohol in gasoline, B., 533. Critical solution temperatures of mixtures of gasoline ethyl alcohol, and water, B., 659. Effect of gasoline volatility on the miscibility with ethyl alcohol, B., 773.
- Bridges, C. B. See Darby, H. H.
- Bridges, W., apparatus for drying, conditioning, or otherwise treating leather and other materials, (P.), B., 896.
- Bridgford, T. E. See Gibbons Bros.
- Bridgham, (Miss) C. M., and King, C. G., composition of lemon albedo pectin, A., 1036.

- Bridgman, P. W., effect of homogeneous mechanical stress on the electrical resistance of crystals, A., 217. Compressibility of cubic compounds, A., 453. Effect of pressure on the electrical resistance of single metal crystals at low temperatures, A., 1005. Compressibilities and pressure coefficients of resistance of elements, compounds, and alloys, many of them anomalous, A., 1006. Pressure-volume-temperature relations of fifteen liquids, A., 1006.
- Bridgwater, E. R., and Krismann, E. H., factors affecting rate of vulcanisation of chloroprene plastic polymerides, B., 357.
- Briegleb, G., polar structure of molecules and nature of residual valency forces, A., 1231.
- and Schachowskoy, T., intermolecular force effects. III. Heat of combination and mode of combination of organic molecular compounds, A., 25.
- Briese, H., determination of atmospheric carbon dioxide necessary for assimilation [by plants], A., 543.
- See also Ehrenberg, P.
- Briese, R. R., and McElvain, S. M., acetoacetic ester condensation. V. Condensation of higher esters, A., 593.
- Briggs, D. R., electro-osmosis and anomalous osmosis, A., 900.
- Briggs, G. E., vegetable assimilation and respiration. XXI. Induction phases in photosynthesis and their bearing on the mechanism of the process, A., 646.
- Briggs, G. H., velocities of emission of  $\alpha$ -particles, A., 110. Relative velocities of the  $\alpha$ -particles from thorium-X and its products and from Ra-C', A., 443.
- Briggs, H., and Sinha, R. P., expansion and contraction of coal caused respectively by the sorption and discharge of gas, B., 291.
- Briggs, H. B., ageing [of cloth], B., 742.
- Briggs, I. A. See Smith, M. C.
- Briggs, J. F. See Brit. Celanese.
- Briggs, L. See Colas Products, Ltd.
- Brigham, H. R. See Huston, R. C.
- Bright, H. A., and Fowler, R. M., determination of aluminium in nitriding steels by use of 8-hydroxyquinoline, B., 630.
- Bright, W. L., and Briscoe, H. T., acidity of organic acids in methyl and ethyl alcohols, A., 904.
- Brigl, P., and Benedict, O., nutritive acid, A., 1162.
- and Grüner, H., carbohydrates. XVI. Preparation of derivatives of  $d$ -glyceraldehyde from  $d$ -mannitol, A., 809.
- and Schinle, R., carbohydrates. XIV. Action of mercaptan on acyl derivatives of cyclic sugars. XV. Benzoyl and benzylidene derivatives of fructose, A., 148, 378.
- and Zerrweck, W., carbohydrates. XVII. Action of acetic anhydride on isopropylidene glucose in presence of zinc chloride, A., 810.
- Brikker, F., and Lasaris, J., effect of irradiated ergosterol on the mineral constituents of cancerous tissue, A., 1188.
- Brill, H. C., and Bulow, T. A., novocaine analogues. IV. Alkamine esters of aliphatic acids, A., 697.
- and Cook, C. F., novocaine analogues. V. Alkamine esters of cinnamic acid and derivatives, A., 711.
- See also Leffler, M. T.
- Brill, J. L. See Du Pont de Nemours & Co., E. I.
- Brilling, S. See Juschkevitch, S.
- Brillouin, L., free electrons in a crystalline network; wave equations and magnetic properties, A., 115. Superconductivity, A., 559. Self-consistent field for bound electrons; superconductivity, A., 1005.
- Brimley, R. C., rate of absorption of gases by liquids, A., 679.
- Brinckmeier, H. See Braunsdorf, K.
- Brindley, G. W., relation of atomic sizes to interatomic distances in homopolar crystals, A., 214. Reflexion and refraction of X-rays by perfect crystals, A., 665. Energy losses of slow electrons in nitrogen, A., 1098.
- and Spiers, F. W., photographic effect of X-rays, A., 1127.
- Briner, E., and Biedermann, H., ozone as oxidising catalyst. IV. Ozonation of benzaldehyde at a low temperature. V. Ozonation of sodium sulphite; influence of dilution of ozone and concentration of hydrogen ions. VI. Action of diluents, of light, and of autoxidation catalysts. VII. Ozonation of hydriodic acid in solution, A., 234, 680, 1126. Identity of the properties of ozone produced by different methods of ozonising oxygen; b.p. of pure ozone, A., 240.
- Denzler, C., and Paillard, H., ozonisation of oleic acid and linseed oil, and the gaseous ozonisation products, A., 806.
- Brinker, F. A., crude and fumed zinc oxide, (P.), B., 626.
- Brinkman, H. See Ornstein, L. S.
- Brinkman, H. C., multiplet separations in the spectra of atoms with two optical electrons, A., 201. Unplaced terms in the alkaline-earth spectra, A., 759.
- Brinkman, R., Margaria, R., and Roughton, F. J. W., kinetics of carbon dioxide-carbonic acid reaction, A., 678.
- Brintzinger, H., and Beier, H. G., influence of hydrophilic colloids or adsorbent compounds on the solubility of sparingly soluble substances. I. Influence of gelatin on solubility. II. Influence of gum arabic, A., 902, 1117.
- and Bubam, W., cement chemistry, B., 428.
- See also Beier, H. G., Brintzinger, J., and Bubam, W.
- Brintzinger, J., and Brintzinger, H., detection of barium, strontium, and calcium in the course of systematic analysis, A., 1133.
- Brion, H., rotatory magnetisation, A., 14.
- Brioux, C., determination of magnesium, A., 1133.
- and Jouis, E., comparative absorption [by plants] of ammoniacal and nitrate-nitrogen in the absence of nitrification, B., 563. Manurial action of magnesium, B., 839.
- Briquet Engineering Co. See Willard, R. E.
- Brischke, M. See Bichowsky, M.
- Briscoe, F. See Gainey, P. L.
- Briscoe, H. T. See Bright, W. L.
- Briscoe, H. V. A., Robinson, P. L., and Rudge, A. J., parachor of rhenium, A., 12.
- Robinson, P. L., and Stoddart, E. M., thioper-rhenates, A., 40.
- Briscoe, M., sulphonated "lorol" and sulphonated "ocenol": latest problems and developments, B., 383.
- Briske, P., Prohl, V., and Luschenowsky, A., magnesium alloys, (P.), B., 794.
- Briske & Prohl. See under Briske, P.
- Brisou, J., and Genevois, L., presence of factor Z in grape juice and fermented liquors, A., 188.
- Bristol, R. S. See Hulbert, H. W.
- Bristow, W. A. See Low Temperature Carbonisation.
- British Aluminium Co., Ltd., Gwyer, A. G. C., and Pullen, A. N. D., preparation of aluminium or aluminium-alloy anodes for electrolytic condensers and rectifiers, (P.), B., 925.
- Brit. Bemberg, Ltd., spinning centrifuges, (P.), B., 15. Spinning of cuprammonium silk, (P.), B., 58. After-treating [delustring] artificial silk, (P.), B., 59. Artificial filaments, (P.), B., 699. After-treatment of artificial silk, (P.), B., 699.
- Brit. Brick-and-Iron Lathing, Ltd., preparing a [sound-proof] mortar for forming or covering building materials, (P.), B., 191.
- Brit. Celanese, Ltd., [softening of] textile [pile] fabrics, (P.), B., 15. Washing or other liquid treatment of cellulose acetate or other derivatives of cellulose, (P.), B., 142. Coloration of filaments, yarns, threads, etc., [effect dyeing of cellulose esters], (P.), B., 187. Treatment of cellulose derivatives, (P.), B., 224. [Ornamented] textile materials, (P.), B., 264. Sound records, (P.), B., 265. [Ornamental] effects on sheet material, (P.), B., 265. Compositions of matter; [moulding powders containing cellulose acetate, etc.], (P.), B., 356. Artificial filaments and similar products [of reduced lustre], (P.), B., 424. [Reducing electrostatic difficulties in processing cellulose acetate] textile materials, (P.), B., 503. Cellulose derivatives [ethers], (P.), B., 543. [Delustred] artificial filaments, threads, films, etc., and fabrics and other articles containing the same, (P.), B., 544. Treatment [reduction of lustre] of artificial filaments, yarns, etc. [of cellulose derivatives], (P.), B., 784. Cellulosic compositions, (P.), B., 825. Cellulose derivatives and products obtained therefrom, (P.), B., 1004. [Delustring of cellulose ester or ether] textile materials, (P.), B., 1054. Treatment of textile materials [with synthetic resins], (P.), B., 1054.
- and Dickie, W. A., manufacture and treatment of artificial materials [containing cellulose esters or ethers], (P.), B., 543.
- Dickie, W. A., and Finlayson, D., doubled crêpe yarns, (P.), B., 224.
- Dickie, W. A., and Hill, F. B., treatment [for increasing heat-resisting properties] of textile materials comprising organic derivatives of cellulose, (P.), B., 504.
- Dickie, W. A., and McGill, A., staple fibre, (P.), B., 264.
- Dickie, W. A., and Moncrieff, R. W., [highly twisted] crêpe yarns and fabrics, (P.), B., 224.
- Dickie, W. A., and Sowter, P. F. C., shrinkage effects in textiles containing cellulose derivatives, (P.), B., 15.



- Brit. Celanese, Ltd., Dickie, W. A., and Sowter, P. F. C., treatment [increasing the extensibility] of artificial filaments and similar products, (P.), B., 423. [Apparatus for] treatment of [travelling] textile materials with liquids, (P.), B., 462.
- Dickie, W. A., and Taylor, W. I., manufacture and treatment of textile materials [staple fibre], (P.), B., 343. Crêpe yarns and fabrics, (P.), B., 1052.
- Dickie, W. A., Taylor, W. I., and McGill, A., manufacture and treatment of textile materials [staple fibre], (P.), B., 343.
- Dreyfus, H., Kinsella, E., Bower, J., and Taylor, W. I., spinning artificial fibres by dry methods, (P.), B., 503.
- Dreyfus, H., Riley, R. H. J., and Bower, J., artificial filaments, threads, yarns, ribbons, etc. [of reduced lustre, from cellulose derivatives], (P.), B., 621.
- Dreyfus, H., and Taylor, W. I., artificial filaments and other products, (P.), B., 187, 423. Artificial silk and other artificial products, (P.), B., 344.
- and Ellis, G. H., coloration of textile materials [discharge effects], (P.), B., 187. Ornamental effects on materials made containing cellulose esters or ethers, (P.), B., 303. [Delustring] treatment of [artificial silk] textile materials, (P.), B., 623. Coloration of textile materials; [production of azo-dyes on the fibre], (P.), B., 863. Colorations [effects] on textile materials containing cellulose esters, (P.), B., 913. Coloration of materials containing cellulose esters or ethers, (P.), B., 1007.
- Ellis, G. H., and Kirk, E. W., fixation of [white] metal compounds on textile materials, (P.), B., 623. Manufacture of azo-dyes and coloration of textile materials, (P.), B., 909. Coloration of textile materials [with ice colours], (P.), B., 912. Dyeing of textile materials [with ice colours], (P.), B., 912.
- Ellis, G. H., and Olpin, H. C., [discharge] pattern effects on textile and other materials, (P.), B., 863. Colorations on materials containing organic derivatives of cellulose, (P.), B., 913. Coloration of materials containing cellulose esters or ethers [to give reserve effects], (P.), B., 1053.
- Ellis, G. H., Olpin, H. C., and Miller, William B., [black] coloration of [cellulose acetate] textile materials, (P.), B., 545.
- Ellis, G. H., and Wesson, A. J., temperature indicators, (P.), B., 897.
- and Greenwood, E. L., treatment of filamentary textile materials, (P.), B., 1007.
- and Groombridge, W. H., acetaldehyde [from alcohol], (P.), B., 776.
- and Hale, F. C., [apparatus for] production of staple fibres, (P.), B., 103.
- Hibbert, H. M., and Roberts, R. P., treatment [lubrication] of filaments, threads, yarns, etc., (P.), B., 1005.
- Jones, J. E., and Bate, S. C., [treatment of] cellulosic materials [for production of organic cellulose derivatives], (P.), B., 1051.
- Jones, J. E., and Johnston, D. R., drying of fibrous or granular materials, (P.), B., 735. [Precipitation] of cellulose derivatives, (P.), B., 782.
- Brit. Celanese, Ltd., and Kinsella, E., films and foils [of cellulose derivatives], (P.), B., 861. Artificial films or foils, (P.), B., 861. Apparatus for manufacture of artificial films and foils, (P.), B., 861. Artificial filaments and similar materials, (P.), B., 1051.
- Kinsella, E., and Riley, R. H. J., artificial [cellulosic] filaments, etc., (P.), B., 860. Artificial filaments, etc., (P.), B., 911.
- and Lander, W. S., films and sheets, (P.), B., 383.
- Mellor, A., and Mann, R. J., [apparatus for] coating or filling textile fabrics, (P.), B., 784.
- Oxley, H. F., Fallows, L., and Dreyfus, H., manufacture or treatment of aliphatic [acetic] anhydrides, (P.), B., 1047.
- Oxley, H. F., and Groombridge, W. H., processes for performing chemical reactions, (P.), B., 448. Carrying out [temperature control of] chemical reactions, (P.), B., 656. Treatment [concentration] of aliphatic [acetic] acids, (P.), B., 1047.
- Parkinson, R. H., and Addy, C. W., treatment [delustring] of materials containing cellulose derivatives, (P.), B., 545.
- Roberts, R. P., and Johnson, E. B., artificial silk and similar products, (P.), B., 1052.
- and Taylor, W. I., [solvent-removal] treatment and manufacture of artificial yarns, threads, filaments, etc., (P.), B., 543. Treatment of [application of liquids to] textile materials, (P.), B., 622. Artificial filaments and threads in the form of hanks, (P.), B., 664. Artificial staple fibre, (P.), B., 860. Artificial filaments or similar extruded materials, (P.), B., 911, 1051. Artificial straws or similar materials, (P.), B., 1052. Yarns, (P.), B., 1052.
- Taylor, W. I., and Kinsella, E., manufacture and [cross-winding] of artificial yarns or threads, (P.), B., 143.
- Taylor, W. I., Roberts, R. P., and Briggs, J. F., artificial filaments, etc., (P.), B., 585.
- Welch, S. A., and Roberts, R. P., treatment [conditioning and de-electrification] of filaments, threads, yarns, and similar textile materials, (P.), B., 382.
- Brit. Coal Distillation, Ltd., and Machen, C., cleansing of carbonaceous matter, (P.), B., 579.
- Brit. Coal Refining Processes, Ltd., and Salerni, P. M., low-temperature carbonisation or distillation of carbonaceous materials, (P.), B., 739. Rotary retorts, furnaces, and similar apparatus, (P.), B., 739.
- Brit. Colliery Owners Research Association, Graham, J. I., and Skinner, D. G., destructive hydrogenation of coal, (P.), B., 339.
- Brit. Industrial Solvents, Ltd., Joshua, W. P., Stanley, H. M., and Dymock, J. B., condensation products from aliphatic organic compounds, (P.), B., 777.
- See also Langwell, H.
- Brit. Otto Ozone Water, Wood, & Textiles Treatment Co., and Otto, M. P., apparatus for dispersing gases in liquids, (P.), B., 4. Ozonisers, (P.), B., 475.
- Brit. "Rema" Manufacturing Co., Ltd., grinding and pulverising mills, (P.), B., 369.
- and Howden, P., control of combustion in metallurgical, boiler, and other furnaces, (P.), B., 944.
- Brit. Rubber Manufacturers Research Association. See Porritt, B. D.
- Brit. Thomson-Houston Co., Ltd., articles [e.g., astronomical mirrors] of refractory material such as silica, (P.), B., 1056.
- and Adkins, R., securing metal to porcelain, (P.), B., 107.
- and Athy, L. C., [coating metals with white] vitreous enamels, (P.), B., 387.
- and Barringer, L. E., electrical arc-resistant materials, (P.), B., 273.
- and Billings, S. P., cemented metal carbides, (P.), B., 713.
- Bray, G. R. R., and Martin, R. I., moulded composite sheets, (P.), B., 912.
- and Brossman, J. R., laminated wood products, (P.), B., 348\*.
- and Clark, F. M., electrically insulating compositions, (P.), B., 273. Dielectric materials, (P.), B., 717, 926.
- Clark, F. M., and Ruscetta, R. A., electric insulating materials [tape, etc.], (P.), B., 434.
- and Coleman, R. E., moulded laminated [resin-impregnated] paper products, (P.), B., 1052.
- and Coolidge, W. D., X-ray devices, (P.), B., 73.
- and Currier, P. M., [temperature regulator for hot-cathode] vapour electric-discharge devices, (P.), B., 154.
- and Devers, P. K., vitreous materials, (P.), B., 670.
- Durant, W. W., and Scrutcheff, P. H., resinous compositions derived from polyhydric alcohols and polybasic acids, (P.), B., 640.
- and Ferguson, C. S., coating compositions, (P.), B., 31.
- and Fiedler, E. F., resinous compositions from phenols and aldehydes, (P.), B., 316.
- and Forney, J. D., [operating] electric-discharge devices, (P.), B., 73.
- and Foulke, T. E., electric-discharge devices, (P.), B., 353.
- and Fuller, T. S., making metal [copper] to be used in electric-discharge or vacuum devices, (P.), B., 394.
- and Groten, F. J., moulded insulating materials, (P.), B., 880.
- Grupe, H. L., and Kienle, R. H., [rubber-resin] plastic compositions, (P.), B., 757.
- and Hoare, S. C., photometric instruments [for electric incandescence lamps], (P.), B., 73.
- Hooper, I. F., Niedergesass, B. F., and Devers, P. K., machines for shaping articles of silica, etc., (P.), B., 20.
- and Hovey, A. G., [cellulose ester] cementing compositions, (P.), B., 238.
- and Hull, A. W., vapour electric-discharge devices, (P.), B., 397.
- and Hurst, I. A., moulding compositions, (P.), B., 277.
- Jackson, E. H., and Cameron, H. J., [liquid] resinous compositions, (P.), B., 837.
- and Kelley, F. C., [tantalum carbide hard] metal compositions, (P.), B., 395, 473.

- Brit. Thomson-Houston Co., Ltd., and Kelley, F. C., [hard] metal [carbide] compositions, (P.), B., 473. [Tantalum carbide] metal compositions, (P.), B., 473, 874. Metal compositions [containing niobium carbide], (P.), B., 553.
- and Kienle, R. H., resinous compositions, (P.), B., 153. Protective colloids for organophobic suspensions, (P.), B., 238.
- Kienle, R. H., and Scheiber, W. J., laminated moulded products formed from paper pulp, (P.), B., 665.
- and King, R. E., [cabinet for] preservation of food [by refrigeration], (P.), B., 1034.
- and Marshall, A. L., gas detectors, (P.), B., 951.
- and Nordstrand, R. D. van, [protective system for conveyors of vitreous enamelling] electric furnaces, (P.), B., 73.
- and Palmer, R., hard metal [tungsten carbide] compositions, (P.), B., 311.
- Pike, O. H., and Hull, A. W., electric-discharge devices, (P.), B., 236.
- and Read, J. C., [mercury-vapour] vacuum pumping systems, (P.), B., 178.
- and Reid, E. H., vapour electric [arc-discharge] apparatus, (P.), B., 113.
- Sabbah, C. A., and Gray, P. M., cathode ray [photographic] apparatus, (P.), B., 73.
- and Safford, M. M., [glyptal] resinous compositions, (P.), B., 837.
- and Staehle, H. C., rust prevention, (P.), B., 234.
- and Steele, W. R., moulding compositions, (P.), B., 153.
- and Sykes, W. P., [cobalt-tungsten-iron] metal alloys, (P.), B., 472. Cobalt-tungsten alloys, (P.), B., 511.
- and Taylor, G. F., hard metal compositions, (P.), B., 196. Welding processes, (P.), B., 352. Cemented carbide discs, (P.), B., 228.
- and Turner, H. W., treatment of textile materials [to render them flexible and fireproof], (P.), B., 1054.
- and Wantz, J. B., X-ray apparatus, (P.), B., 73.
- and Wright, J. G. E., synthetic resins, (P.), B., 317. [Moulding of "alkyd"] synthetic resins derived from polybasic acids and polyhydric alcohols, (P.), B., 721.
- Brittain, F. W. See Olson, A. R.
- Brittain, J. See Henry, D. C.
- Britton, E. C., Bryner, F., and Dow Chem. Co., separation of phenylphenols [o- and p-hydroxydiphenyls], (P.), B., 297. Separation of [o- and p-phenylphenols] [2- and 4-hydroxydiphenyls], (P.), B., 1000.
- and Dow Chem. Co., preparation of o- and p-hydroxydiphenyls, (P.), B., 220. Purification of o-hydroxydiphenyl, (P.), B., 220. Preparation of amine hydrohalides, (P.), B., 261.
- Holmes, R. D., and Dow Chem. Co., separation of N-mono- and -di-alkyl aromatic amines of the benzene series, (P.), B., 1048.
- Mills, L. E., and Dow Chem. Co., [4:6]-dinitro-o-cyclohexylphenol [insecticide], (P.), B., 907.
- Reed, W. R., and Dow Chem. Co., purification of diphenyl oxide [ether], (P.), B., 957.
- Britton, E. C., Slagh, H. R., and Dow Chem. Co., preparation of phosphorus compounds, (P.), B., 786. Preparation of monoalkyl aromatic amines, (P.), B., 999.
- Stoesser, W. C., and Dow Chem. Co., halogenation of multinuclear aromatic hydrocarbons [diphenyl], (P.), B., 220. Separation of [2- and 4-]chlorodiphenyls, (P.), B., 1048.
- See also Hale, W. J.
- Britton, H. T. S., and Battrick, W. E., physico-chemical studies of complex formation involving weak acids. IX. Alkaline solutions of thorium tartrate, A., 228.
- and Dodd, E. N., glass electrode determinations of the dissociation constant of hypochlorous acid, A., 468.
- and Robinson, R. A., complex acids. IX. Tantalio acid; reactions of alkali niobate and tantalate solutions with organic acids. X. Precipitation of metallic vanadates, with a note on Moser and Brand's method of determining vanadium, A., 580, 684.
- and Wilson, (Miss) B. M., electro-metric precipitation of hydroxides. VIII. Standardisation of acid solutions by means of mercuric oxide. IX. Action of ammonia on solutions of mercuric chloride. X. Action of ammonia on solutions of potassium mercuri-iodide, and mercuric bromide, nitrate, sulphate, and perchlorate. XI. Constitution of ammoniacal solutions of (a) silver nitrate, (b) silver oxide, A., 242, 783, 1128.
- Britton, J. G. See Hopkinson, H.
- Britton, S. C., and Evans, U. R., scientific study of protective painting, B., 879.
- Britton, S. W., and Silvette, H., theories of cortico-adrenal function, A., 642.
- Britzke, E. V., and Kapustinski, A. F., affinity of metals for sulphur. V. General conclusions, A., 906.
- Kapustinski, A. F., and Tschenzova, L. G., affinity of metals for sulphur. III. Heats of combustion and formation of the arsenic sulphides,  $As_2O_3$ ,  $As_2O_5$ , and of  $As_2O_3 \cdot SO_2$ , A., 1014.
- Kapustinski, A. F., and Vesselovski, B. K., affinity of metals for sulphur. IV. Dissociation of zinc and manganese sulphides, A., 906.
- Brusova. See under Brüssov.
- Broadbent, F. G. See Dunlop Rubber Co.
- Broadhead, C. F., and Andrews, R. S., treatment of tars [for road purposes], (P.), B., 420.
- Broadhurst, H. M. See Imperial Chem. Industries.
- Broadway, L. F., molecular scattering in gases. II. Collision of sodium and potassium atoms with mercury, A., 1099.
- and Fraser, R. G. J., vapour pressure of trans-di-iodoethylene, A., 560.
- See also Fraser, R. G. J.
- Broadwell, B. E., Hinkley, A. T., and Republic Carbon Co., [carbon] electrode, (P.), B., 715.
- Brobeck, A., circulation of liquor in sulphite[cellulose] cooking, B., 618.
- Broch, E., crystal structure of yttrium vanadate, A., 558.
- Broche, H., Ehrmann, K., and Scheer, W., utilisation of coke-oven tar, B., 337.
- Broche, H., and Nedelmann, H., influence of constituents of the seam on physical and chemical properties of coke and semi-coke, B., 290. Reactivity of coke at temperatures above 1000°, B., 372.
- and Schmitz, H., hydrogenated naphthalenes from technical naphthalene, (P.), B., 908.
- Brock, G. C., silver filter for ultra-violet light, A., 1134.
- Brocklebank, E. W., and Mitford, W. B., retorts and distillation treatment of materials containing hydrocarbons, (P.), B., 738.
- Brooklesby, H. N. See Denstedt, O. F.
- Brockmann, H., carotenoids of the apricot (*Prunus armeniaca*), A., 651.
- See also Kuhn, R.
- Brockmann, M. C., and Werkman, C. H., determination of  $\beta$ -butylene glycol in fermentations, B., 568.
- Brockway, G. G., and Nichols Eng. & Research Corp., activating or revivifying finely-divided materials [e.g., fuller's earth], (P.), B., 215.
- Brockway, L. O., three-electron linking in chlorine dioxide, A., 557. Electron-diffraction investigation of the molecular structure of cyanogen and diacetylene (with a note on chlorine dioxide), A., 1223.
- and Pauling, L., determination of the structure of the hexafluorides of sulphur, selenium, and tellurium by the electron diffraction method, A., 341. Electron-diffraction investigation of the structure of molecules of methyl azide and carbon suboxide, A., 1222.
- Brode, R. B., collision cross-section of argon atoms for 300- to 2500-volt electrons, A., 1099.
- See also Jordan, E. B.
- Brode, W. R., absorption spectra of cobaltous compounds. IV. The alkali oxide-boric oxide glasses, A., 445.
- and Wernert, I. J., resolution of  $\beta$ -ethoxyamines, A., 597.
- See also Magill, M. A., and Wernert, I. J.
- Brodersen, K. See Marx, K.
- Brodersen, P. H., band system of CaO in the near infra-red, A., 112.
- Brodeur, D. A., [non-drying] stain [for wood], (P.), B., 928.
- Brodie, I. B. See Taube, G.
- Brodovitsch, K. I. See Charmandarian, M. O.
- Brodowski, A. See Smolenski, K.
- Brodski, A. I., optical methods for the study of solutions of electrolytes, A., 777.
- Afanasiev, A. S., and Dikova, M. G., electrolytic production of hydrogen peroxide from sulphuric acid, B., 505.
- Brodski, D. A., mechanism of the Perkin reaction, A., 392.
- Brodsky, B., and Perelmann, J., comparison of the methods of determining salicylic and benzoic acids in presence of each other, A., 80.
- Brodsky, M. P., [apparatus for] production of asbestos [from rock], (P.), B., 190.
- Brody, S., Funk, E. M., and Kempster, H. L., growth and development. XIX. Relation between basal metabolism and body-weight in the growing domestic fowl, A., 854.

- Brody, S., Hall, W. C., Ragsdale, A. C., and Trowbridge, E. A., growth and development. XVII. Relation between resting energy metabolism and body-weight in domestic mammals. XVIII. Relation between basal metabolism, resting metabolism, heat increments of feeding, and body-weight in farm mammals. XXIV. Decline in energy metabolism per unit weight with increasing age in farm animals, laboratory animals, and man, A., 854.
- and Procter, R. C., growth and development. XXI. Relation between basal metabolism and body-weight in man. XXII. Relation between basal metabolism and body-weight in laboratory animals. XXIII. Relation between basal metabolism and mature body-weight in different species of mammals and birds, A., 854.
- See also Ashworth, U. S., and Phillips, V. W.
- Broeck, E. H. ten. See Smith, L. B.
- Broekmeyer, J., determination of indican in urine, A., 1068.
- Broeman, F. C., handling of coal, (P.), B., 773. Coal and coke treated with oil, (P.), B., 773.
- Brönsted, J. N., Delbanco, A., and Volqvartz, K., significance of solvent for solubility of salts, and activity coefficients of ions, A., 26.
- and Vance, J. E., catalysed decomposition of nitroamide. IV. Nitroamide catalysis in isoamyl alcohol solution, A., 471.
- Bröse, H. L., determinations of effective cross-sections of gas molecules, A., 882.
- Brogden, E. M., Trowbridge, M. L., and Brogdex Co., protection of fresh fruits against blue mould, etc., (P.), B., 123. Preparation of fresh fruit for market, (P.), B., 1034.
- Brogdex Co. See Brogden, E. M.
- Brohm, K. See Lüning, O.
- Broich, F. See Aberhalden, E.
- Broman, T., use of an extract of seeds of *Echinocystis lobata* for detection of citric acid, A., 106.
- Bromig, K., and Deuts. Gold- & Silber-Scheideanst. vorm. Roessler, betaine hydrochloride, (P.), B., 297.
- Bromiley, E. C., and Quiggle, D., vapour-liquid equilibria of hydrocarbon mixtures, B., 995.
- Bromley, H. A., action of ultra-violet light on gelatin in paper, B., 186.
- Bromme, H. E., constituents of brown coal gas-benzene, B., 1041.
- Broniewski, W., and Jaslan, S., influence of oxygen on properties of copper, B., 309.
- and Smialowski, aluminium-silicon alloys, B., 431.
- and Smolinski, J., structure of iron-nickel alloys, A., 771.
- and Vesolovski, B. K., effect of temperature on the mechanical properties of brass, B., 1012.
- Brons, F. See Coster, D.
- Brons, H. H. See Coster, D.
- Bronson, H. L., Chisholm, H. M., and Dockerty, S. M., specific heats of tungsten, molybdenum, and copper, A., 559.
- Bronszajn, R., extraction of vegetable proteins, (P.), B., 570.
- Brooke, F. W., Cosgrove, W. H., and Swindell-Dressler Corp., conveying apparatus [for heat-treating furnaces], (P.), B., 96.
- Brooke, F. W., and Swindell & Bros., W., ceramic kiln, (P.), B., 428.
- Brooke, R. O., and Smith, Arthur H., inorganic salts in nutrition. VI. Mineral metabolism of rats receiving a diet low in inorganic constituents, A., 529.
- Brooke, S. A. See Woodall-Duokham (1920).
- Brooke, W. J., co-ordinated heat conservation at Normanby Park Steel Works, Scunthorpe, B., 792.
- and Carr, W. F., heating of a battery of Becker compound ovens by means of blast-furnace gas, B., 658.
- Brookens, N., heat of combustion of glycogen, A., 784.
- Brooker, L. G. S., and Eastman Kodak Co., photographic emulsions [and sensitising dyes], (P.), B., 988.
- Hamer, F. M., and Mees, C. E. K., recent advances in sensitisers for the photography of the infra-red, B., 572.
- See also Kodak, Ltd.
- Brookfield, R. W., variations in concentrations of magnesium, calcium, and inorganic phosphorus in rabbit's serum, A., 623.
- Brooks, B. T., and Brooks, W. B., preparation of benzoyl hydrogen peroxide, A., 1291.
- Cardarelli, E. J., and Petroleum Chem. Corp., esters [of  $\Delta^4$ -cyclohexene-1:2-dicarboxylic acid], (P.), B., 219.
- Gray, T. T., and Gray Processes Corp., treatment of crude petroleum, (P.), B., 455.
- and Petroleum Chem. Corp., generating useful products from hydrocarbon mixtures containing olefines, (P.), B., 903. Acetylation of olefines, (P.), B., 904.
- and Standard Alcohol Co., production and distillation of aqueous sulphuric acid solutions of sec- and tert-alcohols, (P.), B., 998.
- Brooks, C. See Miller, E. V.
- Brooks, D. B., ozone, knock-inducer extraordinary, B., 1043.
- and Allen, H. H., improvements in psychrometry, A., 479.
- Brooks, G. See Bertrand, G.
- Brooks, H. B., standard-cell comparator; specialised potentiometer, A., 1135.
- and Spinks, A. W., multi-range potentiometer and its application to the measurement of small temperature differences, A., 366.
- Brooks, H. E. See Gray, R. A. H.
- Brooks, J., effect of carbon dioxide on colour changes or bloom of lean meat, B., 169.
- Brooks, M. E. See Gann, J. A., and Plant, R. A.
- Brooks, M. M., penetration of *m*-bromophenol-indophenol and of guaiacol-indophenol into *Valonia ventricosa*, A., 330. Permeability of living cells. XIV. Penetration of oxidation-reduction indicators into different species of *Valonia*. XV. Penetration into *Valonia ventricosa* of oxidation-reduction indicators including *m*-bromophenol-indophenol and guaiacol-indophenol, A., 330, 989. Absorption spectra of *m*-bromophenol-indophenol, 2:6-dibromophenol-indophenol, and guaiacol-indophenol, A., 855. Effect of methylene blue on hydrogen cyanide and carbon monoxide poisoning, A., 861.
- See also Brooks, S. C.
- Brooks, S. C., rate of penetration of rubidium into living cells of *Valonia* and its relation to apparent ionic radii, A., 330. Chemical *versus* morphological species differences, A., 650. Selective accumulation of ions in cavities incompletely surrounded by protoplasm, A., 858. Ion intake in *Valonia* as affected by hydrochloric acid and carbon dioxide, A., 874. Accumulation of ions by living cells, A., 889.
- and Brooks, M. M., rate of penetration of dyes into *Valonia* with special reference to solubility theories of permeability, A., 650.
- Brooks, W. B. See Brooks, B. T.
- Broom, W. A., commercial assay of vitamin-D, A., 645.
- Brophy, G. R. See Gen. Electric Co.
- Brophy, T. W. See Dunn, M. S.
- Brosa, S. See Torres, C.
- Brosius, E. E., and Edgar, L. C., handling pulverulent material, particularly flue dust, (P.), B., 3.
- Brosius, R., causes of formation of zinc dust, B., 672.
- Brossa, G. A., process for demonstrating lability in serum, A., 175.
- Brossman, J. R. See Brit. Thomson-Houston Co.
- Brosteaux, J. See Putzeys, P.
- Brothers, W., dehydration of gypsum, (P.), B., 703.
- Broude, L., extractives of muscle. XXX. and XXXI. Determination of carnosine. XXXIII. Extractives of crab's muscle (*Astacus fluviatilis*, L.), A., 79, 735.
- Broun, A. S., synthesis of thiophen, A., 834.
- Broustet, P. See Mauriac, P.
- Brouwer, E., variation in iodine value of milk fat from individual cows, B., 363. Feeding test with tapioca meal on milch cows, B., 443. Supplementary feeding of milch cows on pasture and quality of butter produced, B., 443.
- Brouwer, G. See Olie, J.
- Brown, A. H., effects of sulphuric acid delinting on cotton seeds, B., 839.
- Brown, A. L. See Westinghouse Electric & Manufg. Co.
- Brown, A. M., Felton antibody: its distribution and purity as determined by salting-out methods, A., 1182.
- Brown, B. A., effects of fertilisers on seasonal production of pastures, B., 201.
- Brown, B. E. See Zimmerley, H. H.
- Brown, B. K., [electrolyte for Leclanché] primary cell, (P.), B., 154.
- Brown, C., colour reactions, B., 382.
- Brown, D. J. See Andrews, L. V.
- Brown, D. M. See Faber, H. K.
- Brown, E. B. See Frey, C. N.
- Brown, Edith M. See Campbell, A. N.
- Brown, Edward M., enzymatised stock feed, (P.), B., 811.
- Brown, E. P. See Shaeffer, E. J.
- Brown, F. E., and Headington, C. E., stability of ethylene glycol in acid solution, A., 1123.
- and Lewis, E. R., hydrolysis of pentosans from corn cobs, A., 493.
- See also King, W. B.
- Brown, F. M., age of meteor crater, A., 481.
- Brown, F. W., charge distributions in fluorine and neon, A., 996.
- Bartlett, J. H., jun., and Dunn, C. G., charge distributions for the normal atoms from boron to neon, A., 996.
- See also Kohler, E. P.

- Brown, G. W. See Bonhoeffer, K. F.
- Brown, H. See Bartell, F. E.
- Brown, H. B. See Shohl, A. T.
- Brown, H. R., and Hanson, R. L., venting dust explosions, B., 367.
- Brown, J. See Halkett, R.
- Brown, James. See Courtaulds, Ltd.
- Brown, J. R. (Leeds). See David, W. T.
- Brown, John R., and Clarke, Sidney W., [variegated] dyeing of hanks of artificial silk yarn, wool yarn, or other yarn, (P.), B., 462.
- Brown, J. W. See Brown, M. P.
- Brown, (Miss) Janet W., temperatures of sublimation of twelve amino-acids, A., 343.
- Brown, L. See Dunlop Rubber Co.
- Brown, L. M. See Dengler, F. P.
- Brown, M. G., Luck, J. M., Sheets, G., and Taylor, C. V., action of X-rays on *Euplotes Taylori* and associated bacteria, A., 316.
- Brown, Mark H., effects of nitrogenous fertilisers on the nitrifying power of Carrington loam, B., 680.
- Brown, Milton H., and Knowles, W., concentration of pseudoglobulins of anti-pneumococcus serum, A., 318.
- Brown, M. P., and Brown, J. W., screen organisation for filter outlets, (P.), B., 288.
- Brown, O. W., Shelley, R. L., and Kanning, E. W., expansion as a controlling factor in positive-plate paste composition for lead storage batteries, B., 925.
- Brown, P. E. See Schlots, F. E., Smith, Frederick B., and Walker, R. H.
- Brown, R., nitrogen fixation in the genus *Lolium*, A., 327, 1342.
- Brown, Rachel. See Wadsworth, A.
- Brown, R. B., attritional *versus* beater and jordan refining [of paperpulp], B., 618.
- and Sutherland, D. M., jun., fireproof fibre product [board], (P.), B., 460.
- Brown, R. J., and Nees, A. R., solubility of sucrose in beet-house syrups, B., 567.
- Brown, R. K., heat of reaction of oxygenation of haemocyanin, A., 844.
- Brown, Ralph L., and Odell, W. W., reaction products from hydrocarbons and water, (P.), B., 617.
- Brown, Russell L., and Fitger California Co., cleaning of wool and other allied fibres, (P.), B., 824.
- Brown, R. R. H., and Muir, J. J., vapour pressure of sulphur at 50°, A., 1238.
- Brown, R. S., heat-exchange tubes for use in steam boilers, superheaters, economisers, oil stills, or other heat exchangers, (P.), B., 896.
- Brown, S., and Grisco-Russell Co., scale-shedding heat-transfer apparatus, (P.), B., 688.
- Brown, W., dry-cleaning solvents, B., 425.
- Brown, W. G., absorption spectrum of iodine bromide, A., 5. Intensity variations in fluorescence series of sodium, A., 759.
- and Fringsheim, P., excitation of resonance series in sodium vapour by illumination with the D-line, A., 655.
- Brown, W. R., and Mason, F. A., preparation of 4:4'-tetraethyldiamino-2:2'-dimethoxytriphenylcarbinol, A., 1158.
- Blue sodium salt of rhodamine-B and related substances, A., 1173.
- Brown & Adam, Ltd. See Burgess, G. E.
- Brown Co., manufacture and treatment of paper, (P.), B., 862.
- Brown Co. See also Hill, R. B., Lovering, E. W., Moore, K. H., Richter, G. A., Sohur, M. O., and Vannah, H. P.
- Browne, A. W. See Dresser, A. L., Frost, W. S., and Howard, D. H., jun.
- Browne, C. A., spontaneous heating and ignition of hay and other agricultural products, B., 444.
- and Balch, R. T., recommendations for use of a 26-026-gram normal weight for Ventzke scale saccharimeters, B., 761.
- See also Phillips, Max.
- Browne, F. L., effectiveness of paints in retarding moisture absorption by wood, B., 799.
- See also Dalglish, H. V.
- Browne, G. See Edwards, R. S.
- Browne, J. S. L., crystalline oestrogenic hormones, A., 643.
- and Grant, R., production of lactic acid in liver pulp, A., 1080.
- See also Butenandt, A.
- Browne, T. C., Kayko, C. J., and Browne, T. C., [high-resistance material, (P.)], B., 154.
- Browne, V. B., silicon steel from silicon scrap, (P.), B., 195.
- Magnetic alloys, (P.), B., 432.
- Brownell, K. A., Lockwood, J. E., and Hartman, F. A., a lactation hormone of the adrenal cortex, A., 1084.
- Browning, C. H., Cohen, J. B., Cooper, K. E., Ellingworth, S., and Gulbransen, R., antiseptic and trypanocidal action of benzamidoquinoline anil and styryl compounds, A., 985.
- See also Ashley, J. N.
- Browncombe, E. R. See Fricke, H.
- Brownson, H. W., Cook, M., and Miller, H. J., properties of temper-hardening copper alloys containing additions of nickel and aluminium, B., 921.
- See also Imperial Chem. Industries.
- Broxon, J. W., cosmic-ray ionisation as a function of pressure, temperature, and dimensions of the ionisation chamber, A., 5.
- Brü, L., determination of molecular structure by means of electron diffraction VI.—VIII. Ethyl chloride, bromide, and iodide, A., 890.
- Bruce, C. W., electro-optical Kerr effect in gases, A., 1232.
- Bruce, R. G., and Bruce Co., E. L., classification of wood [flooring] products, (P.), B., 708.
- Bruce Co., E. L. See Bruce, R. G.
- Bruch, E. See Wrede, F.
- Bruch, N. See Hoffmann, Hellmut.
- Bruchhausen, F. von, Oberembt, H., and Feldhaus, A., oxyacanthine and berbamine, III., A., 1313.
- Bruckner, S., and Meinhard, P., behaviour of bitumens in filtered ultra-violet light, B., 418.
- Bruckner, V., micro-determination of methoxyl, A., 172.  $\psi$ -Nitrosite of asarone [2:4:5-trimethoxypropenylbenzene], A., 1289.
- Brüchatov, N. See Aknlov, N.
- Brüche, E., and Johansson, H., kinematographic electron microscopy of oxide, cathodes, A., 3. New cathode investigations with the electrical electron microscope, A., 3. Electron microscope observations of the barium evaporation cathode, A., 881.
- Brüche, W., efficiency of vacuum pumps, B., 687.
- Brück, E. See Pincussen, L.
- Brücke, F. T., production of glycogen by yeast, A., 1082.
- Brückersteinkuhl, K., distribution of radiation in the arc, A., 440.
- Brückmann, G., preparation and properties of thin films of lead sulphide, with special reference to their detector action. I., A., 1113.
- See also Tiede, E.
- Brückner, H., temperature regulation by means of contact thermometers, A., 1026.
- and Jacobus, G., activity of nickel catalysts for the methane synthesis, B., 772.
- See also Bunte, K.
- Brueckner, H. H. See Edmunds, C. W.
- Brückner, K., determination of small amounts of selenium in pyrites, B., 1055.
- Brückner, M. A., protein and mineral metabolism in leucorrhœa, A., 853.
- Brüggemann, H. See Krzywaneck, F. W.
- Brüggemann, J., antiscorbutic action of ascorbic acid, A., 646.
- Brühl, H., micro-determination of organic acids in blood-serum, A., 295.
- Brüll, J. See Hüttig, G. F.
- Brümmer, F. See Fricke, R.
- Brün, W., and Remington Arms Co., priming mixture, (P.), B., 814.
- Brüne, F., influence of period of cutting on yield of highmoor meadows and nutrient content of highmoor hay, B., 359.
- Brünger, H. See Ruzicka, L.
- Brüning, A., spontaneous ignition of sugar, B., 326.
- Brüning, H., and Sieverts, A., electrical resistance of palladium wires charged with hydrogen between 160° and 310°, A., 467.
- Brure, P., reserve of fermentable sugar of flour, and bread-making correctives, B., 39. Micro-examination of flour, paste, and bread, B., 89. Determination of sulphuric acid in flour, B., 90. Examination of candles, B., 376.
- and Chevalier, J., bean meal and malt flour in milling and baking, B., 1078.
- and Fourmont, A., reactions for [detecting] rancidification of fats, B., 513.
- Brüssow, L. See Nametkin, S. S.
- Bruger, M., and Poindecker, C. A., effect of ingestion of water and urea on cholesterol content of plasma, A., 858.
- See also Mirsky, J. A.
- Bruggeman, D. A. G., calculation of dielectric constant of a salt from a single determination with a salt mixture, A., 1000.
- Bruggen, M. G., van. See Arkel, A. E. van.
- Bruhat, G., and Chatelain, P., photo-electric polarimetry; measurement of rotatory dispersion of sugars, A., 211.
- and Guinier, A., improvements in the photo-electric polarimeter: rotatory dispersion of sucrose in the ultra-violet, A., 448.
- Bruhns, G., properties of Fehling's solution, B., 166. Müller's solution [for determination of invert sugar], B., 441. Determination of available chlorine in bleach liquor, B., 1008.
- Bruni, C. See Parisi, E.
- Bruins, E. M. See Büchner, E. H.
- Bruinsma, J. R. See Ginneken, P. J. H. van.
- Brül, A., and Plettinger, E., rhenium oxytetrachloride, A., 797.

- Brunauer, S. See Emmett, P. H., and Mayer, J. E.
- Bruck, O., gravimetric determination of calcium and its separation from magnesium, A., 1024.
- Brundage, P. S. See Weatherill, P. F.
- Brunel, A. See Fosse, R.
- Bruner, F. H. See Thomas, H. E.
- Bruner, H. D. See Wakerlin, G. E.
- Brunetti, R., and Ollano, Z., doublet separation of the  $\text{Co}^{+++}$  ion, A., 5.
- Brunius, E., adsorption and elution of the Forssman heterogenetic antigen, A., 410.
- Brunner, J., heat treatment of steel rails and shapes, (P.), B., 712.
- Brunner, K. [with Mikoss, M. von, and Riedl, J.], derivatives of 3:3-dimethyl-indolinone. II., A., 1170.
- Brunner, R. See Schreder, K.
- Brunot, F. R., toxicity of osmium tetroxide, A., 747.
- Brunovski, B., concentration of radium in various organisms, A., 875.
- Bruns, B., Maximova, M., and Pos, H., mechanism of the formation of acid oxides at carbon surfaces, A., 683.
- and Zarubina, O., change in the form of [adsorption] isotherms in the progressive activation of charcoal, A., 1112.
- See also Balachowski, S.
- Brunton, C. E., influence of foodstuffs on rate of urinary acid excretion, A., 969.
- Bruson, H. A., and Resinous Products & Chem. Co., acids from petroleum hydrocarbons, (P.), B., 822.
- Treatment of polymerisable unsaturated compounds, (P.), B., 823.
- Preparation of esters derived from petroleum hydrocarbons, (P.), B., 905.
- Preparation of salts of ketonic acids derived from petroleum, (P.), B., 905.
- Preparation of organic acids and products [alkylated aromatic keto-acids], (P.), B., 1047.
- Robinson, J. D., and Resinous Products & Chem. Co., preparation of heptaldehyde and undecylenic [undecenoic] acid [from castor oil], (P.), B., 1047.
- and Röhm & Haas Co., mixed esters of benzophenonepolycarboxylic acids [resins and coating compositions], (P.), B., 238.
- Polyhydric alcohol-polybasic acid resin, (P.), B., 239.
- Heavy-metal ketobenzoates, (P.), B., 907.
- Brusoff, A., silica bacteria, A., 537.
- Extracellular fat-formation by a lime-assimilating bacillus, A., 1083.
- Bruun, J. H., and Hicks-Bruun, M. M., 1:1-dimethylcyclopentane and  $\beta$ -methylhexane in midcontinent petroleum, B., 611.
- Bruyas, J., piece-loading of natural silk, B., 504.
- Treatment with silicate and dyeing of loaded silk fabrics, B., 504.
- Bruylants, P., and Fonteyn, M., unsaturated nitriles;  $\Delta^4$ -octenonitrile and  $\Delta^4$ -nonenonitrile, A., 1281.
- See also Merckx, R.
- Bruynes, J. See Uytendhoeven, W.
- Bruzau, (Mme.), spontaneous resolution of 4-methoxy-*ms*-methyldeoxybenzoin,  $\text{CHPhMeCO}\cdot\text{C}_6\text{H}_4\cdot\text{OMe}$ , A., 394.
- Bružs, B., theory of diffusion, A., 17.
- Thermodynamic treatment of stationary systems, A., 905.
- Theory of heat conductivity, B., 895.
- Bryan, A. M., unusual occurrences of inflammable and noxious gases in mines, B., 4.
- Bryan, C. C. See Tartar, H. V.
- Bryan, C. S., bromothymol-blue reaction in freshly drawn milk, A., 969.
- and Rumford Chem. Works, processing of sludges, etc., (P.), B., 448.
- See also Fabian, F. W., and Fiske, A. H.
- Bryan, J. M., effect of  $p_{\text{H}}$  on rate of oxidation of solutions of ferrous citrate, A., 1018.
- Effect of  $p_{\text{H}}$  on corrosion of iron, A., 1251.
- and Morris, T. N., effect of metals on colour of raspberries and strawberries, B., 1081.
- See also Morris, T. N.
- Bryan, L. O. See Du Pont de Nemours & Co., E. I.
- Bryan, N. T., and Assoc. London Flour Millers, [spraying device for] moistening of sub-divided materials, such as cereals, (P.), B., 208.
- Bryan, W. R., and Minot, A. S., incidental hyperguanidemia in dogs in parathyroid tetany, A., 973.
- See also Minot, A. S.
- Bryant, A. P., and Jones, R. C., composition of corn [maize] syrup unmixed, B., 520.
- See also Corson, G. E.
- Bryant, D. M. See Miller, W. C.
- Bryant, D. Y., and Firth, Blakeley, Sons & Co., purification of town gas or other fuel gas, (P.), B., 774.
- Bryant, G. R., and Vogt Machine Co., H., rotary filter press, (P.), B., 769.
- Bryant, W. M. D., empirical molecular heat equations from spectroscopic data, A., 894.
- Optical crystallography of acetaldehyde-2:4-dinitrophenylhydrazones, A., 1005.
- Bryce, D. A., inhalation technique for comparison of semi-volatile liquids, A., 1198.
- Bryce, Ltd., and Sidney, A. A., means for filtering liquids, (P.), B., 992.
- Bryne, J. F., and Koppers Co. of Delaware, gas and carbonised fuel, (P.), B., 534.
- Bryner, F. See Britton, E. C.
- Bryson, H. C., water paints and distempers, B., 595.
- Fillers [for plastic materials], B., 595.
- Unbreakable [gramophone] records, B., 596.
- Cascien in paper industry, B., 619.
- Brzek, J., frothing in carbonation of fractionally defecated juice, B., 485.
- Bua, R. F. See Orgaz, J.
- Buaas Mejerimaskinfabriker Afdeling af Aktieselskabet Frederiksberg Metalvarefabrik, pasteurising apparatus, (P.), B., 97.
- Buadze, S., determination of action of various enzymes excreted in the urine of the human and animal organism. I. Determination of tryptic action, A., 1331.
- See also Abderhalden, E.
- Bub, L. See I. G. Farbenind.
- Bubam, W., and Brintzinger, H., thermoregulator for higher temperatures, B., 607.
- See also Brintzinger, H.
- Bubblestone Co. See Rice, J. A.
- Buc, H. E., and Standard Oil Development Co., oil-soluble dyes, (P.), B., 262.
- See also Standard Oil Development Co.
- Buch, K., boric acid in sea-water and its effect on the carbon dioxide equilibrium, A., 691, 802.
- Buchan, S., and McCombie, H., chlorination of iodophenols. V. *m*-Iodophenol, A., 155.
- Buchanan, G. H., hydrocyanic acid, B., 144.
- and Amer. Cyanamid Co., dithiophosphates and compositions containing same, (P.), B., 427.
- Buchanan, J. H., Toulouse, J. H., and Amer. Bottlers of Carbonated Beverages, clarifying and recovering caustic soda content of deteriorated alkaline solutions [from bottle-washing], (P.), B., 427.
- See also Shumaker, J. B.
- Buchanan, K. S. See Sure, B.
- Buchanan, M. A. See Coleman, G. H.
- Bucherer, H., influence of unbalanced manuring on nitrification in soils, B., 563.
- Buchholtz, H., and Bühler, H., influence of time and temperature of tempering on internal stress of heat-treated steel, B., 230.
- Determination of internal stress in steel cylinders from stress-time curves, B., 231.
- Relation between heat stresses and tensile properties of steel, B., 389.
- and Krekeler, K., prevention of corrosion-fatigue [of steel], B., 790.
- See also Faulhaber, R.
- Buchholz, F. K. See Dietschlag, E.
- Buchholz, H., autogenous welding of aluminium and its alloys, B., 552.
- Buchkremer, R. See Röntgen, P.
- Buchler, C. C. See Page, J. M., jun.
- Buchmann, E., helium isotherms at low temperatures and high pressures, A., 453.
- Buchtala, J., analysis of fuels and mine gases by means of the microdynamograph, B., 947.
- Buchwald, K. W. See Kletzien, S. W.
- Buchwald, R. See Rosenmund, K. W.
- Buck, J. S., catalytic reduction of mandelonitriles, A., 821.
- So-called 1:2-dihydropapaverine, A., 841.
- Reduction of hydroxymandelonitriles; synthesis of tyramine, A., 1049.
- and Ide, W. S., mixed benzoin. IX. *meso*-Chloro-derivatives. X. Conversion of benzanisoin into anisbenzoin, A., 68, 1298.
- Thermal interconversion of mixed benzoin, A., 394.
- Buckendahl, W., physical chemistry of inflammation and astringent action; physico-chemical analysis of the biological effects of soaps and of tannin, A., 860.
- Buckeye Twist Drill Co. See Rodman, C. J.
- Buckingham, R. See McBain, J. W.
- Buckley, H., experimental determination of mean effective wave-lengths and their application of heterochromatic photometry, A., 1264.
- Buckley, H. E., and Cocker, W., habit variation in potassium chlorate crystals produced by dyes, A., 451.
- Buckley, J. R. See Du Pont de Nemours & Co., E. I.
- Buckley, O. B., effect of subcutaneous injections of trypsin on the blood-sugar and on insulin action, A., 985.
- Buckner, S. E. See Felsing, W. A.
- Buckner, H. K. See Rowan, W. H.
- Budd Manufacturing Co. See Meadowcroft, J. W.

- Budde, H. See Mannich, C.
- Buddenberg, O., Duftschmid, F., and Schlecht, L., pure carbonyl iron as a magnetic material of high permeability, B., 1011.
- Buddenbrock, R. von. See Alder, K.
- Budgen, N. F., trend of progress of aluminium, B., 233.
- Budhiraja, K. L. See Bhatnagar, S. S.
- Budiloff, N., electrodeposition of rubber from Rovyrtex and Revultex, B., 317.
- Budnikov, P. P., reaction of sulphur with terpenes, and use of this reaction for preparation of a solution of gold, A., 830. Reduction of sodium sulphate to sulphide, A., 913. Anhydrite cement, its preparation and properties, B., 1057.
- Batt, A. O., Grebenik, A. A., and Endovitzkij, W. J., firebrick with increased alumina content, B., 106.
- and Belovodski, V. V., Ukrainian tripolites in cement and fireclay industries, B., 307.
- and Dorofeev, V. M., utilisation of waste products from manufacture of alumina from kaolin, B., 549.
- and Gulinov, L. G., utilisation of Krivoi Rog clinker for manufacture of clinker Portland cement, B., 549. New cements from blast-furnace slags, B., 965.
- and Loginov, S. P., refractory plugs and spouts for ingot moulds in iron metallurgy, B., 307.
- and Mandelgrin, E. L., influence of fireclay dust on chemical and thermal properties of refractive bricks, B., 627.
- Budnitzki, S. See Suknewitsch, J.
- Budrow, T. T. See Hunter, W. H.
- Budyanskaja, M., utilisation of nephelitic waste, B., 59.
- Büche, W., filtration of [fine] suspensions [from coarse impurities], B., 607.
- Büchi, J., determination of alkaloids in *ipecacuanha* root, B., 525.
- Büchner, A., and Etzrodt, A., direct-current grid as a source of alternating current for measuring purposes, A., 1026.
- Büchner, E. H., Bruins, E. M., and Merckel, J. H. C., lyotropic numbers and viscosity, A., 24.
- and Samwel, P. J. P., mol. wt. of cellulose acetate and nitrate, A., 261.
- and Stenteil, H. E., osmotic pressure and viscosity of cellulose nitrate solutions, A., 1114.
- Voet, A., and Bruins, E. M., lyotropic numbers and the properties of ions, A., 24.
- Büchner, K., and Preussische Bergwerks- & Hütten A.-G., extraction and manufacture of potassium sulphate from calcium-containing sulphates, (P.), B., 146.
- Buehler, C. A., Currier, E. J., and Lawrence, R., identification of amines as 3:5-dinitrobenzoates, A., 939.
- Bühler, F., effect of sex hormones on creatine metabolism, A., 755. Sexual hormone in the urine of men of various ages, A., 1211.
- Bühler, H., and Scheil, E., simultaneous effects of heat and transformation stresses in quenched steels, B., 230. See also Buchholtz, H.
- Buehrer, T. F., movement of gases through soil as a criterion of soil structure, A., 369. Physico-chemical relationships of soil phosphates, B., 580.
- Buell, M. V., Strauss, M. B., and Andrus, E. C., metabolic changes involving phosphorus and carbohydrate in the autolysing gastrocnemius and cardiac muscles of normal, thyroxinised, and adrenalectomised animals, A., 87.
- Bülów, B. F. von. See Lockemann, G.
- Bülów, M. See Wieland, H.
- Bümming, G., testing of potassium ferro- and ferri-cyanide for chloride and bromide, B., 145.
- Bürger, H., [variations in milk composition], A., 524. [with Werner, A., Glet, P., Schultz, J., and Keseling, J.], feeding trials with marrowstem kale, B., 987. and Lamprecht, H., feeding trials with fish meal for calves and milch cows, I. Trials with calves, B., 844. Lamprecht, H., Eichstädt, and Mrozek, feeding trials with fish meal for calves and milch cows. II. Influence of herring meal on the properties, quantity, and composition of milk and on the live-weight of cows, B., 844. Werner, A., and Brandenburg, H., fattening experiments with ducklings, B., 811. See also Nolte, O.
- Büssem, W., and Gottfried, C., structure of rubidium ferricyanide, A., 215. and Gross, F., structure and gas content of nickel layers produced by cathodic sputtering, A., 1234.
- Büttner, G., union of organic bases with proteins. I. II. Peptisation of caseinogen by adrenaline, A., 462. and Miernmeister, A., manganese content of cow's milk, beef, and other food-stuffs, B., 889.
- Büttner, M., Wood-Sorel cement composition, B., 628.
- Buffalo Forge Co. See Criquei, A. A.
- Buffalo Foundry & Machine Co. See Kermer, M. J., and Marie, D. J. van.
- Buffle, J., chlorination of fluorene, A., 57.
- Buften, W. R., pectin production, B., 204.
- Bugbird, H. C. See Lester, R. E.
- Buhrmann, I., oligodynamic action of silver with special reference to in- and re-activation, A., 1208.
- Bukatz, P. See Walter, H.
- Bukey, F. S., and Cunningham, R. W., [toxicity of] *Senecio Riddelli*, A., 746.
- Bukreeva, P., Soviet bleaching earths, their activation and application, B., 735.
- Bulask, F. J., Batchell, G. W., and Schwalbe, F. G., melting of glass, (P.), B., 627.
- Bulgakov, N., determination of amino-acids by formol titration, A., 843.
- Bulian, W., cuprous oxide photo-cells; unidirectional layer photo-effect, A., 1229.
- Bulina, J., basic slags of the open-hearth furnace, B., 967.
- Bulkley, R., and Snyder, G. H. S., spreading of liquids on solid surfaces; anomalous behaviour of fatty oils and fatty acids with experiments leading to a tentative explanation, A., 222.
- Bull, B. A., and Fuson, R. C., cleavage of carbonyl compounds by alkalis. X. Trihalogenomethylketonic acids, A., 1048.
- Bull, H. B., errors in determination of bound water, A., 1218.
- Bull, L. B., Dickinson, C. G., and Dann, A. T., enzootic hematuria (*Hematuria vesicalis*) of cattle in S. Australia, A., 180.
- Bull, T. R., and Cooper, S. S., isotopes of cobalt by the magneto-optic method, A., 994.
- Bullard Co. See Dunn, T. E.
- Bullock, J. L., and Forbes, G. S., formation of sodium thiosulphate from oxidation of sodium sulphides by means of an aromatic nitro-compound, A., 241.
- Bullock, J. W., ephedrine solutions, (P.), B., 652.
- Bullock, K. See Butchers, W. H.
- Bulow, T. A. See Brill, H. C.
- Bulthuis, H. See Coster, D.
- Bulytschev, V. G. See Pokrowski, G. I.
- Buman, M. See Stetzenko, I.
- Bume, G. F., and Werber, E., blood-coagulating influence of parathyroid injections, A., 97.
- Bumm, E., Appel, H., and Couceiro, P., co-enzyme of glycolysis from tumours, II., A., 1202.
- Bumm, H. See Dehlinger, U.
- Bun, R. H., enzymes of "kabitofo," a Chinese food, A., 533.
- Bunbury, H. M. See Imperial Chem. Industries.
- Bunce, Earle H., Lentz, C. J., Mahler, G. T., and New Jersey Zinc Co., metallurgical furnace [for zinc distillation], (P.), B., 633. and New Jersey Zinc Co., condenser for zinc vapours, (P.), B., 235, 553. Reduction of zinciferous materials, (P.), B., 395.
- Bunce, Edwin H., determination of the extract of coffee and chicory, B., 1081. and Moltra, G. C., detection of adulteration of Indian coffee, with special reference to the extract method, B., 40.
- Bunatian, H. See Johannissian, A.
- Bunitski, V. L. See Gulinov, V. G.
- Bunker, J. W. M., Harris, R. S., and Eustis, R. S., antirachitic potency of the milk of human mothers fed previously on "vitamin-D milk" of the cow, A., 969. See also Harris, R. S.
- Bunn, C. W., adsorption, oriented overgrowth, and mixed crystal formation, A., 1106.
- Bunte, K., influence of bitumen on coking capacity of coal and coal mixtures, B., 132. Recent developments in the coking process, B., 946.
- Brückner, H., and Ludewig, W., Neunkirchen [gasholder] explosion, B., 947.
- Brückner, H., Ludewig, W., and Runge, O., [gas-]purification materials, B., 1041.
- Brückner, H., and Simpson, H. G., changes in constitution and caking power of coal during heating to the plastic stage, B., 771. Adsorption of pyridine vapour by coal, B., 849. and Jahn, G., calculation of the ignition limits [of explosive gas mixtures] from rate of propagation of the flame, B., 531.
- Bunting, R. W. See Hubbell, R. B.
- Bunting, W. R. See Nelson, R. E.
- Bunzell, H. H., Forbes, M., and Sherman, R., rope prevention [in bread], B., 90.
- Burawoy, A., light absorption and constitution. VI. Light absorption of conjugated systems. VII. Mode of action of positive groups, A., 62, 208. Addition of doubly-linked groups, A., 590.



- Burawoy, A., and Markowitsch, I., constitution of so-called aromatic o-hydroxyazo-compounds, A., 828. Constitution of acyl derivatives of o-hydroxyazo-compounds, A., 946.  
See also Hantzsch, A.
- Burbidge, P. W., simple high resistance, A., 1265.
- Burch, C. R., Preece, F. N., and Associated Electrical Industries, high-vacuum distillation systems, (P.), B., 817.
- Burch, E. F., and Doherty Research Co., dewaxing of petroleum oil, (P.), B., 9.
- Burchard, E. F., fluor spar deposits in Western United States, A., 483.
- Burchfield, P. E. See Booth, H. S.
- Burdekin, L., and Mott, R. A., coke formation. IV. Temperature range of swelling of single coal particles. V. Assessing the value of laboratory cokes, B., 771.
- Burdick, C. L. See Du Pont de Nemours & Co., E. I.
- Burdon, R. S., surface tension of mercury in silica apparatus, A., 115.
- Bureš, E., some lesser-known oils, B., 974.
- Buret, R. See Dufraisse, C.
- Burg, A. B., and Schlesinger, H. I., hydrides of boron. II. Preparation of  $B_2H_{11}$ ; its thermal decomposition and reaction with hydrogen. III. Dimethoxyborane, A., 1257.  
See also Thornton, N. V.
- Burger, A. See Mosettig, E.
- Burger, E. See Bäggi, B.
- Burger, G., gravimetric separation of chlorine, bromine, and iodine, A., 362.
- Burger, H. C., and Cittert, P. H. van, true and apparent intensity distribution in spectral lines. I. and II., A., 201, 548.  
See also Ornstein, L. S.
- Burgers, W. G., recrystallisation power and shear hardening in aluminium single crystals, A., 341. X-Ray investigations of BaO-SrO mixtures when heated to redness, A., 345. Recrystallisation of aluminium crystals. IV. Work-hardening and power of recrystallisation during plastic deformation of metals, A., 452. Plasticity in single crystals, A., 1005.  
and Elenbaas, W., zone-like structure of electrolytically prepared nickel layers, A., 767.  
See also Claassen, A.
- Burgess, A. H., [drying of hops], B., 203.
- Burgess, G. E., Burgess, Ledward & Co., Ltd., and Brown & Adam, Ltd., dyeing [of fabrics], (P.), B., 1053.
- Burgess, W. W., Harvey, A. M., and Marshall, E. K., jun., site of the antidiuretic action of pituitary extract, A., 1337.
- Burgess Battery Co. See Storey, O. W., and Zimmerman, J. G.
- Burgess Cellulose Co. See Schorger, A. W.
- Burgess Laboratories Inc., C. F., and Schorger, A. W., ether derivatives of carbohydrates, particularly cellulose, (P.), B., 543. [Hydroxyalkyl] ether derivatives of cellulose, (P.), B., 781.  
See also Kliefoth, M. H., and Schorger, A. W.
- Burgess, Ledward & Co., Ltd. See Burgess, G. E.
- Burget, C. E., Lloyd, R., and Moore, P., absorption rates of galactose and mannose, A., 419.
- Burgevin, H., fixation of nitrogen by the bacteria of legumes, A., 437. Nitrogen manuring of legumes, B., 563.
- Burgh, A. J. P. van der, reaction between calcium oxide and silica in relation to the hardening of Portland cement, A., 37.
- Burghoff, H. L. See Crampton, D. K.
- Burman, G. H., flat varnish, (P.), B., 514.
- Burgsmüller, W., tensile strength of synthetic rock-salt crystals at low temperatures, A., 342. Influence of foreign substances on low-temperature tensile strength of synthetic rock-salt crystals, A., 769.  
See also Steiner, K.
- Burgvitz, G. K., utilisation of marine algae for obtaining yeast and alcohol, B., 888.
- Burjak, A. E. See Charmandarian, M. O.
- Burk, D., energy and chemical mechanism of nitrogen fixation by *Azotobacter*, A., 96.  
Horner, C. K., and Lineweaver, H., injury and recovery of respiration and catalase activity in *Azotobacter*, A., 96.  
See also Allison, F. E.
- Burke, C. E. See Du Pont de Nemours & Co., E. I.
- Burke, C. F., and Weir, J. F., hæmorrhagic tendency in jaundice; blood-fibrin, sedimentation rate, coagulation time, and other blood factors, A., 1071.
- Burke, E., Nygard, I. J., and Martin, W. McK., phosphate fertilisers on Montana soils, B., 981.
- Burke, O. D. See Blodgett, F. M.
- Burke, S. P., and Gen. Atlas Carbon Co., carbon black, (P.), B., 1044.
- Burke, V., bacteria as food for vertebrates, A., 1075.  
and Gibson, F. O., Gram reaction and electrical charge of bacteria, A., 1208.
- Burkey, H. M., Cole, L. E., and Amer. Metal Co., recovery of copper [from scrap], (P.), B., 311.
- Burkhardt, A., Linieux, W., and Sachs, G., copper-phosphorus alloys with a high phosphorus content, B., 510.  
and Sachs, G., degasification of casting copper by lithium, B., 510.
- Burkhardt, G. N., dissociation constants of acids, A., 569. Action of chlorosulphonic acid on phenol and *p*-cresol at low temperatures, A., 603.
- Burkholder, C. L., dusting versus spraying of apples, B., 85.
- Burkholder, T. M., effect of sodium thiocyanate on action of anæsthetic and narcotic drugs, A., 532.
- Burks, D., jun., treatment of water for ice manufacture. II., B., 895. Manufactured ice at low brine temperatures, B., 895.  
See also Shriner, R. L.
- Burks, M. L. See Woollett, G. H.
- Burks, E. S., Milgevskaja, V. L., and Benderskaja, A. S., determination of rubidium in plants, A., 875.
- Burky, E. L., cultures and broth filtrates of *Staphylococci*, A., 753.
- Burlage, H. M. [with Jacobs, M. L., and Le Blanc, F. J.], assay of nux vomica by a methoxy-difference method, B., 571.
- Burnah Oil Co., Ltd., Nixon, G. R., and Downer, R. E., refining of oil-wax mixtures, (P.), B., 696.
- Burmeister, E., and Jellinek, K., vapour pressures and activities of binary alloys, A., 771.
- Burmeister, W. See Schlötter, M.
- Burn, J. H., and Ling, H. W., excretion of ketonic substances on a fat diet as affected by injection of pituitary (anterior lobe) extract and by pregnancy, A., 643.  
See also Coward, K. H.
- Burnes, R. L. See Pierce, J. B., jun.
- Burnett, K. H. See Loomis, W. E.
- Burnham, G. B., apparatus for obtaining sodium chloride, (P.), B., 913.
- Burnham, R. W. See Pasternack, R.
- Burnham Chemical Co. See Woodward, H. T.
- Burns, C. M., calcium content of muscle, A., 625.
- Burns, F. B. See Ingersoll, A. W.
- Burns, G. J. See Schoenfeldt, H. W.
- Burns, G. R., photosynthesis in various portions of the spectrum, A., 793.
- Burns, J. E., and Remington Arms Co., ammunition, (P.), B., 493, 653. Priming mixture, (P.), B., 733.
- Woodford, W. H., and Remington Arms Co., refining [of antimony sulphide] and apparatus therefor, (P.), B., 785.
- Burns, J. L. See Sauveur, A.
- Buron, H. A. See Stevenson, H. P.
- Burrage, A. C., jun., preparation of sulphur [black] dyes, (P.), B., 221.
- Burrage, L. J., determination of [sorption] isothermals by the retentivity technique, A., 221. Discontinuities in the sorption process, A., 221. Adsorption. I. Mechanism of the activation of charcoal. II. Mechanism of the adsorption of vapours by unactivated charcoal. III. Effect of activation of charcoal on isothermals of carbon tetrachloride. IV. Effect of activation of charcoal on isothermals of water, and its relation to hysteresis. V. Sorption of vapours by activated charcoal. VI. Comparison of the isothermals of carbon tetrachloride and carbon disulphide on charcoal, A., 457, 898, 1112. Influence of combined oxygen on the adsorption of vapours by porous solids. I. and II., A., 563, 918. Activated adsorption, A., 898.  
See also Allmand, A. J.
- Burriel, E. See Sierra, F.
- Burrough, E. J., Swartzman, E., and Strong, R. A., classification of coals, using specific volatile index, B., 609.
- Burroughs, R. E., and Eastman Kodak Co., ultra-violet-sensitive photographic element, (P.), B., 685.  
and Ferguson, J. E., use of the vacuum-tube electrometer with extremely high input resistance, A., 925.
- Burrows, E. H., concrete strength increased by spray irrigation, B., 428.  
and Hoyt, W., explosive composition, (P.), B., 894.
- Burrows, G., and Clark, F. L., molybdenum resistance furnace, A., 1026.
- Burrows, G. J., and Parker, R. H., arsine derivatives of silver salts, A., 1313.
- Burrows, H., Dodds, E. C., and Kennaway, N. M., effects observed in mice under continued treatment with œstrin, A., 755.
- Burrows, S. V. See Harding, W. H.
- Burrows, W., growth of *Clostridium botulinum* on casein hydrolysate and hydrolysate preparations, A., 866.  
See also Jordan, E. O.



- Burruss, G. H., and Col-Tex Refining Co., treatment of [hydrocarbon] oil and reagents [therefor], (P.), B., 537.
- Burschies, K. See Bauer, Hugo.
- Burstall, F. H. See Morgan, G. T.
- Burstein, A. I., determination of fine soot inhaled by man, B., 46.
- Burstein, R., Frumkin, A., and Fedotov, N., experimental evidence for activated adsorption of hydrogen by charcoal, A., 898.
- Burstin, H., and Winkler, J., hydrogenation of mineral oils, B., 453.
- Burström, D. See Euler, H. von, and Hellström, H.
- Burström, H. See Lundegårdh, H.
- Burt, C. G., Anderson, I. L., and Amer. Smelting & Refining Co., tilting furnace, (P.), B., 711.
- Burt, C. P., Corcoran, D. R., and Koerber, I. V., cyclic acetals. II. Formation of cyclic acetals of  $\delta$ -dihydroxy- $\Delta^8$ -octadiene, A., 695.
- Burt, P. R. See Alcock, V. G. H.
- Burt Co., Ltd., F. N. See Darrin, M.
- Burtner, R. R. See Gilman, H.
- Burton, A. E. See Gas Light & Coke Co.
- Burton, A. H., machines for washing gases, (P.), B., 336.
- Burton, D., determination of the  $p_H$  of chestnut [tanning] extracts, B., 33. Determination of the  $p_H$  values of tanning extracts, B., 319.
- and Robertshaw, G. F., analysis of sulphonated oils. II. and III., B., 275, 594.
- Burton, E. F., Braaten, E. O., and Wilhelm, J. O., diffusion of helium through quartz: relation to temperature, A., 776.
- Burton, H., and Shoppee, C. W., anionotropic and prototropic changes in 4-hydroxycyclopentenones, A., 67.
- Shoppee, C. W., and Wilson, Christopher L., anionotropic and prototropic changes in cyclic systems. I. Hydroxycyclopentenones, A., 826.
- See also Baker, J. W.
- Bury, G. R., and Davies, E. R. H., system magnesium chloride-lime-water, A., 782.
- and Redd, R., system sodium carbonate-calcium carbonate-water, A., 1120.
- Bury Felt Manufacturing Co., Ltd. See Platt, S.
- Busch, H. See Remy, H.
- Buschendorf, F., crystal structure of silver perchlorate, A., 451.
- Buschmakin, I. N., and Frost, A. V., oxidation of phosphorus by water at high temperatures and under pressure. III. Phosphine. IV. Phosphorous acid, A., 1129.
- Molkentin, J. R., and Rachinski, F. Y., oxidation of phosphorous acid, B., 226.
- and Ruisakov, M. V., purification of hydrogen containing phosphine under pressure, B., 226.
- Ruisakov, M. V., and Frost, A. V., oxidation of phosphorus by water at high temperatures and under pressure. I. Red phosphorus. II. Yellow phosphorus, A., 1129.
- See also Ruisakov, M. V.
- Buse, R. See Kolbach, P.
- Buser, K., absorptive power of pigments for plasticisers, B., 399.
- Bush, M. T., and Johnson, J. R., arsenated derivatives of phenobarbital [5-phenyl-5-ethylbarbituric acid], A., 1177.
- Bushill, J. H. See Lampitt, L. H.
- Bushnell, J., symptoms of fertiliser injury to potatoes, B., 884.
- Buskett, E. W., treatment of metallic ores; [blast furnace for zinc ores], (P.), B., 793.
- Buskirk, H. H., Bacon, W. E., Tourtellotte, D., and Fine, M. S., stability of vitamin-C in frozen orange juice during prolonged storage, B., 703.
- Busoni, E. See Jolles, Z. E.
- Buss, G., infra-red absorption measurements of organic substances. I. Apparatus and absorption of some solvents and organic dyes, A., 661.
- Buss, W., and Buss Akt.-Ges., extractor, (P.), B., 449.
- Buss Akt.-Ges. See Buss, W.
- Bussard, L., examination of beetroot seeds, B., 484.
- Busse, P., products obtained by heating vitamin-D and their hydro-derivatives, A., 434.
- Busse, W. F., physical structure of elastic colloids, A., 125.
- Bussemaker, B. B. See Stoll, A.
- Bussey, E. E., and Bussey Fuel Gasifier Corp., oil-gas generator, (P.), B., 950.
- Bussey Fuel Gasifier Corporation. See Bussey, E. E.
- Bussies, J. L. See Rogers, T. H.
- Bussit, J., effect of  $p_H$  on precipitation of arginine and histidine as the silver salts, A., 1039.
- Bussler, L. T., detergent composition, (P.), B., 477.
- Busson, A. See Simonnet, H.
- Busson, W., structural changes in thin sheets of mild steel produced by annealing, B., 22.
- Buston, H. W., and Chambers, V. H., cell-wall constituents of *Cetraria islandica* ("Iceland moss"), A., 1342.
- and Nanji, H. R., preparation of methyl esters of pectic acid, A., 491.
- Buswell, A. M., treatment of gelatinous and colloidal materials, (P.), B., 46.
- and Boruff, C. S., mechanical equipment for continuous fermentation of fibrous materials, B., 327.
- Boruff, C. S., and Wiesman, C. K., anaerobic stabilisation of milk waste, B., 126.
- See also Adams, H. W., Althausen, D., Boruff, C. S., and Symons, G. E.
- Butcher, C. H., industrial microscopy. I. Mounting technique for fine powders. II. Paint pigments, B., 943, 976.
- Butchers, W. H., Bullock, K., and Priddey, G. R., preparation and storage of tribromoethyl alcohol, A., 1271.
- Butenandt, A., biology and chemistry of sexual hormones, A., 322.
- and Browne, J. S. L., female sexual hormone. IX. Comparison of theclol, emmenin, and follicular hormone hydrate, A., 643.
- and Hilgetag, G., vegetable, fish, and insect poisons. VI. Relation of toxicol to rotenone, A., 1302.
- and Jacobi, H., female sexual hormone. X. Preparation of a crystalline plant tokokin (thelykinin) and its identification with  $\alpha$ -follicular hormone, A., 870.
- Weidlich, H. A., and Thompson, H., constitution of follicular hormone, A., 540.
- Buthion, H., drying webs of fabric, (P.), B., 58.
- Buthmann, G., effect of solvent on reaction velocity, A., 1250.
- Butkevitch, V. V., ability of different plants to utilise calcium phosphate, B., 883.
- Butler, A. M., and Montgomery, H., solubility of plasma-proteins. I. Dependence on salt and plasma concentrations in concentrated solutions of potassium phosphate, A., 293.
- Butler, A. W. See Dunn, M. S.
- Butler, C. L., and Cretcher, L. H., preparation and optical rotation of pure quinidine, A., 729. Preparation of dibenzoyl-*d*-tartaric acid, A., 823.
- Butler, F. J. C. See Bancroft, W. D.
- Butler, J. A. V., and Armstrong, G., kinetics of electrode processes. II. Reversible reduction and oxidation processes, A., 235. Electrometric titrations with oxygen electrodes, A., 1022.
- and Connell, (Miss) L. C., rôle of the solvent in electrolytic dissociation, A., 784.
- and Thomson, D. W., electrolytes in mixed solvents. V. Free energy of lithium chloride in water-alcohol mixtures and the salting-out of alcohol, A., 904.
- Thomson, D. W., and MacLennan, W. H., free energy of normal aliphatic alcohols in aqueous solution. I. Partial vapour pressures of aqueous solutions of methyl, *n*-propyl, and *n*-butyl alcohols. II. Solubilities of normal aliphatic alcohols in water. III. Theory of binary solutions, and its application to aqueous-alcoholic solutions, A., 772.
- See also Hamilton, R. T., Orr, W. J. C., and Vosburgh, W. C.
- Butler, L. See Winter, O. B.
- Butler, O., use of kinit for control of poison ivy, B., 244.
- and Murray, H. L., effect of potassium nitrate on vigour and productivity of healthy and leaf-roll Green Mountain potato plants and their progenies, B., 202.
- Butterfield, C. T., changes in numbers of bacteria in polluted water, B., 942.
- See also Theriault, E. J.
- Butterick Publishing Co. See Yohns, P.
- Butterworth, B., florescences. VI. The florescence test and chemical examination of florescences, B., 670.
- Butterworth, C. E. See Schwab, J. W.
- Butterworth, E., performance of two new finishing machines on linen, B., 961.
- and Elkin, H. A., linen-cellulose complex. I. Effects of alkaline hydrolysis, B., 342. Scouring of linen, B., 961.
- Butterworth, H. W., jun., and Butterworth & Sons Co., H. W., method and means for mercerising, (P.), B., 545.
- Butterworth & Sons Co., H. W. See Butterworth, H. W., jun.
- Buttescu, D., simultaneous determination of nitrogen and the halogens in organic substances, A., 963.
- Buttig, H. See Maurer, E.
- Butts, D. C., and Hercules Powder Co., purification of [wood] rosin, (P.), B., 356.
- Butts, J. S., and Deuel, H. J., jun., sexual variation in carbohydrate metabolism. II. Acetoacetic acid in fasting rats and guinea-pigs, A., 631.

- Butz, L. W., and Du Vigneaud, V., formation of a homologue of cystine by decomposition of methionine with sulphuric acid, A., 151.
- Butz, R. J. See Fry, H. S.
- Buxton, B. H., and Darbishire, F. V.,  $p_H$  in fruit extracts, B., 282.
- Buylla, B. A., and Pertierra, J. M., oxidation of aromatic hydrocarbons, A., 943.
- Buzzo, A., and Carratalá, R. E., sodium nitrite and sodium hyposulphite in potassium cyanide poisoning, A., 1079. Sodium nitrite and thiosulphate as antidotes for potassium cyanide, A., 1329.
- Bychowski, S., distribution of arsenic in contact systems, B., 746.
- Byčichin, A., and Láška, nephelometric determination of sulphurous acid and its salts, A., 921.
- Byck, L., and Bakelite Corp., [resinous] phenolic condensation products, (P.), B., 721.
- Bye, M. See Merrell, C. G.
- Byerly, T. C., Titus, H. W., and Ellis, N. R., effect of diet on egg composition. II. Mortality of embryos in eggs from hens on diet containing protein supplements of different origin, A., 1194. Production and hatchability of eggs as affected by different kinds and quantities of proteins in diet of laying hens, B., 489.
- See also Ellis, N. R., and Titus, H. W.
- Byers, H. G., and Rubber Service Labs. Co., vulcanised rubber product, (P.), B., 723.
- See also Anderson, M. S.
- Byers Co., A. M. See Aston, J.
- Byk-Guldenwerke Chemische Fabrik Akt.-Ges., liquid preparations of tribromethyl alcohol, (P.), B., 296.
- See also Mengele, H.
- Bylewski, T., curve passing through azeo- and heteroazeotropic points, A., 896.
- Byrkit, G. D. See Smith, L. I.
- Byrkit, R. J., jun., and Hercules Powder Co., hydrogenation of abietic acid ester, (P.), B., 1021.
- Byrne, A. See Conway, E. J.
- Byrnes, C. P. See James, J. H.
- Byrnes, Townsend, & Potter. See Williams, W. G.
- Byrod, F. R., and Susquehanna Silk Mills, colour-discharge printing, (P.), B., 1054.
- Byron, F. E. See Badenoch, A. G.
- Bystrenin, A. See Gubarev, E.
- Bystrova, E. M. See Tiulin, A. T.
- Byvel, G. See Nazarevich, S.
- C.
- C, L. H. N., carbon dioxide in the sea, A., 368.
- C. & C. Developing Co. See Cherry, L. B.
- C.P.T. Development Co. See Andrews, C. W.
- Cabannes, J., molecular symmetry and diffusion spectra, A., 113. Raman spectrum of  $SO_4^{2-}$  in gypsum, A., 208. Depolarisation of light diffused by a uniaxial crystal with optic axis parallel to diffused light, A., 553.
- and Rousset, A., depolarisation of Raman radiation in diffusion spectra of liquids, A., 446.
- Cabell, C. A. See Underwood, J. E.
- Cabral, A., analysis of cream, B., 489.
- Cabrera, B., and Fahlenbrach, H., diamagnetism of water at different temperatures, A., 766. Variation with temperature of the diamagnetic constant of water, A., 1002. Diamagnetism and temperature, A., 1002. Diamagnetism of organic compounds and influence of temperature and constitution. I. Primary alcohols, nitrobenzene, and cresol, A., 1233.
- Caccia, P., making and freshening cheese, (P.), B., 42.
- Cadbury, G., canning fruits and vegetables, B., 1082.
- Caddick, A. J. See Cargo Fleet Iron Co.
- Cade, A. R., and Halvorson, H. O., germicidal and detergent substances, (P.), B., 1088.
- Cadenbach, G., determination of fluorine in organic compounds by a lamp method, A., 408.
- See also Fredenhagen, K.
- Cadwell, S. M., and Naugatuck Chem. Co., treatment of rubber with aldehyde derivatives, (P.), B., 318. Vulcanisation of rubber and similar materials, (P.), B., 481, 558.
- See also Naugatuck Chem. Co.
- Cady, H. P., and Jones, E. A., fusion curves for the systems ammonia-propyl alcohols and ammonia-butyl alcohols, A., 465.
- and White, W. E., surface electrons in adsorption and catalysis, A., 912.
- Cady, W. G., spectra of calcium  $r$ -like ions: manganese VI, iron VII, cobalt VIII, and nickel IX, A., 439.
- Caesar, G. V., consistency changes in starch pastes, B., 121.
- Cage, J. M., and Electric Separation Co., insulator bushing for electrical petroleum dehydrators, (P.), B., 796.
- Cagliotti, V. See Tammann, G.
- Cahane, M., effect of the parotid gland on carbohydrate metabolism, A., 1210.
- See also Parhon, C. I.
- Cahen, (Mlle.) J., polarisation of fluorescent light, A., 999.
- Cahen, R. See Lévy, (Mlle.) Jeanne.
- Cahn, F. J. See Miller, H. J.
- Cahn, R. S., metathebainone, A., 1061. *Cannabis indica* resin. IV. Synthesis of some 2:2-dimethyldibenzopyrans, and confirmation of the structure of cannabinol, A., 1302.
- Jones, W. O., and Simonsen, J. L., constitution of chlorination products of benzanthrone, A., 611.
- Cahn, T., and Houget, J., composition of muscle, liver, and blood of the dog, A., 1185.
- Cahnmann, H. See Schlemmer, F.
- Cahoon, R. F. See Roe, J. H., and Yater, W. M.
- Caillère, (Mlle.) S., thermal dissociation of serpentine minerals, A., 352. Fibrous sepiolite from Madagascar, A., 369.
- See also Orel, J.
- Caillon, A. See De Fleury, R.
- Cain, J. R., and Richardson Co., anode for iron plating, (P.), B., 71.
- Cairns, A. C. H. See Thompson, H. W.
- Cairns, H. See Musckett, A. E.
- Cairns, R. W., and Ott, E., X-ray studies of the system nickel-oxygen-water. I. Nickelous oxide and hydroxide. II. Compounds containing tervalent nickel, A., 352.
- Cajori, F. A., resistance of glucoscurido to urease and other enzyme action; non-absorbability of glucoscuride from the jejunum, A., 420.
- Calabro, Q., and Fantozzi, F., endocrine glands and excretion of milk, A., 626.
- Calbeck, J. H., storage battery plates, (P.), B., 433.
- Calcagni, G., and Sturnajolo, M., technical preparation of sulphuric and phosphoric acids, B., 345.
- Calco Chemical Co., Inc. See Beardsley, A. P., and Crossley, M. L.
- Calcott, W. S. See Du Pont de Nemours & Co., E. I.
- Caldwell, B. P., and Dye, G. H., [ravisin] rapeseed oil: air-blowing in presence of catalysts, B., 353.
- Caldwell, F. R., thermoelectric properties of platinum-rhodium alloys, A., 669.
- Caldwell, H. B., and Swenson Evaporator Co., vacuum cooler, (P.), B., 369.
- Caldwell, M. L., and Doebling, S. E., influence of ions on extraction of malt-amylase from alumina gel, A., 93.
- Caldwell, P., and Moorman Manufg. Co., mineral [phosphate poultry] feed, (P.), B., 1034.
- Caldwell, P. S., and Thomson, A. S. T., influence of roughness of surface and variation of speed on boundary lubrication, B., 575.
- Caldwell, W. A. See Wilson, F. J.
- Caldwell, W. S., and Maclean, K. R., phase-rule study of mixed derivatives of alcohols, A., 1013.
- Caley, E. R., action of hydriodic acid on the sparingly soluble sulphates, A., 1259.
- See also Taylor, H. S.
- Calfee, R. K. See McHargue, J. S.
- Calhane, D. F., and Alber, C. M., tantalum and niobium cathodes versus platinum cathodes for electro-analysis, A., 584.
- and Wilson, C. C., formation of organic nitro-compounds by electrolytic action, A., 914.
- California Cap Co. See Hammond, J. A.
- California Chemical Corporation. See Seaton, M. Y., and Woodward, H. T.
- California Club, effect of synthetic resins and pigments on drier absorption and viscosity, B., 975.
- California Fruit Growers' Exchange, jelly preparations, (P.), B., 890. Jellies, jams, and similar food products, (P.), B., 938.
- and Stevens, J. W., beverages and beverage materials, (P.), B., 683.
- Calkin, J. B., developments in microscopy of paper, B., 224.
- Callan, T., unshrinkable woollen goods, B., 663.
- Callaudaux, R. See Ravaz, L.
- Callaway, J., and Reznick, S., determination of small quantities of benzyl alcohol, A., 732.
- Callegari, L. See Mascherpa, P.
- Callendar, G. S., reduction of platinum resistance thermometers to the international temperature scale, A., 44.
- See also Egerton, A.
- Callendar, L. H., effect of heat-treatment of the metal on determination of silicon in aluminium, and loss of volatile silicon compounds in the mixed-acid method of solution of the metal, B., 271. Graphitic silicon, heat-treatment, and electrical conductivity of aluminium, B., 351. Determination of graphitic silicon in a siliceous residue, A., 1261.

- Callery, L. E. *d'A.*, rendering ammonium nitrate non-hygroscopic and non-deliquescent, (P.), B., 105. Explosive substance, (P.), B., 990.
- Callite Products Co., Inc. See Laise, C. A.
- Callow, R. K., and Rosenheim, O., action of selenium dioxide on sterols and bile acids. I. Ergosterol and dihydroergosterol, A., 605.
- Calloway, N. O. See Gilman, H.
- Callsen, B., and Winthrop Chem. Co., tribromosalcohols, (P.), B., 217.
- Calò, A. See Marotta, D.
- Calorizing Co. See Sayles, B. J.
- Calvert, C. K., effect of sunlight on dissolved oxygen in White River, B., 942.
- Calvert, F. See Leeds De-Tinning, Ltd.
- Calvert, M. A., and Clibbens, D. A., deconvolution of cotton hairs as a test of the mercerisation process; the "deconvolution count," B., 666.
- Calvert, R., and Van Schaack Bros. Chem. Works, pyroxylin composition, (P.), B., 31.
- and Celite Corp., filtration material, (P.), B., 130.
- Calvert, W. C. See Goodyear Tire & Rubber Co.
- Calvery, H. O., analyses of egg-shell keratin, A., 522. Crystalline ovalbumin; hydrolysis by pepsin, papain-hydrocyanic acid, and pancreatic proteinase, and subsequent action of other enzymes on the hydrolysis products, A., 1203.
- Waldschmidt-Leitz, E., and Schöffner, A., fractional enzymic degradation of ovalbumin, A., 749.
- Calvet, E., organic thermochemical measurements. I.—III. Velocities and heats of saponification of amides, A., 353, 470, 573.
- Calvet, F., and Mejuto, M. N., 1:3-dioxins. III. Condensation of *p*-nitroanisole with formaldehyde and the mechanism of the formation of 6-nitro-1:3-benzodioxin, A., 163.
- and Mosquera, L., Sucharda and Bobranski's semimicro-method of elementary analysis, A., 172.
- Calvet, J. See Matignon, C.
- Calvi, G., obviating noxious effects of vapours emitted during working of aluminium residues and use of nitrocellulose lacquers, B., 286.
- Cambi, L., constitution of nitrosylsulphuric acid, and the reactions in the lead chamber, A., 580. Nitrogenous free radicals; structure of diarylnitric oxides, A., 1283.
- and Szegő, L., magnetic susceptibility of complex compounds. II., A., 556.
- Cambier, R., and Leroux, L., determination of organic nitrogen in the presence of nitrates by Kjeldahl's method, A., 408.
- Cambio Products, Ltd. See Mapson, L. W.
- Cambridge Instrument Co., Ltd. See Moss, E. B.
- Cambron, A., pyrolysis of gaseous paraffins, with special reference to production of ethylene, B., 338.
- and Bayley, C. H., pyrolysis of the lower paraffins. II. Production of olefines in baffled quartz tubes, B., 949.
- and Roessler & Hasslacher Chem. Co., accelerator for vulcanisation of rubber, (P.), B., 318.
- Cameron, A. H. See Harris, J. A.
- Cameron, D., some variations in beater dyeing [of paper], B., 344.
- Cameron, D. H., and Adams, R. S., determination of chromium in [tan] liquors and leather by the perchloric acid method, B., 515.
- Cameron, G. See Chambers, R.
- Cameron, G. M. See Sherman, J. M.
- Cameron, H. A. See Hudgins, L. C.
- Cameron, H. C., value of ferrous iodide administered directly and indirectly, A., 1088.
- Cameron, H. J. See Brit. Thomson-Houston Co.
- Camichel, C., flow of viscous liquids, A., 118.
- Campanile, S., chemical composition of spores of vegetable parasites of cereals, A., 653.
- Campbell, A. J. R. See Campbell, A. N.
- Campbell, A. N., constitution of binary alloys at room temperature, A., 454.
- and Brown, Edith M., affinity constant of aniline in acetone-water mixtures, A., 904. System aniline-acetone-water, A., 1008.
- and Campbell, A. J. R., rotation of Rochelle salt in alkaline media, A., 9.
- Velocity and mechanism of racemisation. II. Mandelic acid, A., 130.
- Existence of a complex in racemising solutions, A., 1240.
- and Slotin, L., systems ammonium *d*-tartrate-lithium *d*-tartrate-water, and ammonium lithium *d*-tartrate-ammonium lithium *l*-tartrate-water, A., 1246.
- Slotin, L., and Johnston, S. A., preparation of *r*-tartaric acid, A., 807.
- Campbell, A. W., and Goodrich Co., B. F., rubber composition and method of preserving rubber, (P.), B., 1070.
- Campbell, C., and King, Alfred, flame movements in gaseous mixtures. II. Pressure conditions ahead of flames, A., 786.
- and Whitworth, C., flame movements in gaseous mixtures. I. Movement of explosion waves in gases contained in tubes of non-uniform diameter, A., 786.
- Whitworth, C., and Woodhead, D. W., rates of detonation in carbon monoxide-oxygen mixtures, A., 232.
- Campbell, C. H., tomato juice or tomato pulp, B., 90. Preparation of glue stocks, (P.), B., 598.
- Campbell, F. L., Sullivan, W. N., and Smith, C. R., relative toxicity of nicotine, anabasine, methylanabasine, and lupinine for culicine mosquito larvae, B., 654.
- See also Jones, H. A.
- Campbell, J., and Masten, R. A., surface porosity of paper as a measure of finish, B., 620.
- Campbell, J. A., [gas-liquid] absorption, (P.), B., 370.
- Campbell, J. G. See Robertson, F. R.
- Campbell, J. M. See Lovell, W. G.
- Campbell, J. S. (California), nuclear moments of the gallium isotopes 69 and 71, A., 334. Hyperfine structure in the arc spectrum of fluorine, A., 991.
- and Bacher, R. F., nuclear moments of indium and gallium, A., 439.
- Campbell, John Stuart, artificial skin and leather, (P.), B., 482. Reconstituted skin and leather, (P.), B., 515.
- Campbell, M. H., fat-globule size in milk, B., 363.
- Campbell, N. R., recent improvements in photo-electric cells, B., 71.
- See also Bennett, C. T.
- Campbell, O. F., Herthel, E. C., and Sinclair Refining Co., coking of heavy oils, (P.), B., 535.
- Campbell, R. A., Osgood, E. E., and Haskins, H. D., normal renal threshold for glucose, A., 175.
- Campbell, R. C., and Oliver United Filters, Inc., continuous filter, (P.), B., 448.
- Campbell, R. E., and Stone, M. W., effect of sulphur on wireworms, B., 119.
- See also Stone, M. W.
- Campbell, W., control of retort-bench vacuum, B., 179.
- Campbell, W. G., chemistry of the white rots of wood. III. Effect on wood substance of *Ganoderma applanatum* (Pers), Pat., *Fomes fomentarius* (Linn.), Fr., *Polyporus adustus* (Willd.), Fr., *Pleurotus ostreatus* (Jacq.), Fr., *Armillaria mellea* (Vahl), Fr., *Trametes pini* (Brot.), Fr., and *Polystictus abietinus* (Dicks), Fr., A., 189.
- and Taylor, K. F., chemical changes induced in wood by saturated steam under pressure, B., 468.
- Campbell, W. H. See Erren, R. A.
- Campbell, W. P. See Rosewarne, P. V.
- Campen, M. G. van, jun., and Johnson, J. R., absolute method for establishing orientation in the furan series, A., 280.
- Camus, A. See Chollet, A.
- Canac, F., diffusion of light as a means of studying corrosion of metals, A., 248.
- Canada Malting Co., Ltd. See Dax, P. J.
- Canadian Electro Products Co., Ltd., and Blaikie, K. G., polymerisation of vinyl compounds and catalyst therefor, (P.), B., 296.
- Blaikie, K. G., Morrison, G. O., and Shaw, T. P. G., controlling molecular aggregation in the polymerisation of vinyl esters, (P.), B., 296.
- See also Matheson, H. W.
- Canadian International Paper Co. See Dosne, R.
- Canal, H. See André, E.
- Canals, E., and Hortal, A., colorimetric analysis, A., 245.
- and Médaille, A., radioactivity of musts and wines, B., 984.
- and Peyrot, P., molecular scattering of light in liquids, A., 1229.
- and Ramabeuna-Ranaivo, surface tension of oils, A., 671; B., 76.
- See also Godchet, M.
- Canary, J. D. See Hill, W. M.
- Cândea, C., constitution of bisdiethylanilinoisatin and of the green colouring matter obtained by oxidation, A., 400.
- and Kühn, J., thermal decomposition of methane from Sarmasel (Rumania), B., 953. Reduction of iron ores by mineral gas, B., 1057.
- and Sauciac, L. I., rapid detection of sodium and potassium in presence of ammonium and magnesium salts, A., 244. Detection and separation of the metals of the second analytical group, A., 245. Detection and separation of the metals of the third analytical group, A., 246. Separation of sulphur bases from sulphur acids, and detection of the elements in group II., A., 687.
- Candlish, W., Morgan, W. T., and Interstate Co.-partnership Assoc., filtering system and filter tank, (P.), B., 255.

- Canfield, J. J., and Empire Oil & Refining Co., method and reagent for treating wet [petroleum] oils, (P.), B., 295.
- Cann, J. Y., glycine in water solution, A., 26.
- Cannavò, L., and Indovina, R., effect of prolan on magnesium balance and magnesium content of organs, A., 755.
- Canneri, G., influence of aliphatic hydroxy-acids on solubility of rare-earth salts of vital dyes, A., 629.
- and Rossi, A., preparation of metallic praseodymium, A., 360. Heat of formation of compounds between praseodymium and magnesium and between praseodymium and aluminium, A., 676.
- and Salani, R., additive compound of vanadium tetrachloride and sulphur tetrachloride, A., 361.
- Canning, E. W. See Hartman, R. J.
- Cannon, C. Y., Espe, D. L., and Waide, J. B., jun., relation of dietary fat and fat derivatives in the faeces of young dairy calves, A., 1188.
- Cannon, H. H., and Cannon-Prutzman Treating Processes, Ltd., neutralising acid-treated oils, (P.), B., 694.
- Cannon, H. J. See Emmett, A. D.
- Cannon, W. A., absorption of oxygen by roots when the shoot is in darkness or in light, A., 327.
- Cannon, W. B., chemical mediators of autonomic nerve impulses, A., 1084.
- Cannon-Prutzman Treating Processes, Ltd. See Cannon, H. H.
- Canonico, A., and Taiana, J. A., iron as a cation in relation to reducing power of tissues, A., 741.
- Cantacuzene, J., and Tschekirian, A., vanadium in some Tunicates, A., 177.
- Cantarow, A., arterial and venous blood-sugar response to adrenaline in normal individuals and in biliary tract disease, A., 1069.
- and Davis, R. C., blood-non-protein-nitrogen and -creatinine in nephritis and prostatic obstruction, A., 1191.
- and Ricchiuti, G., urea clearance test in pregnancy, A., 1323.
- Cantelo, R. C., and Phifer, H. E., partial molal volumes of cobalt sulphate and of cadmium iodide [at 25°], A., 566.
- Canter, F. W., Robertson, A., and Waters, R. B., lichen acids. V. Synthesis of methyl O-tetramethylglyrophosphate, A., 713.
- Canton Stamping & Enameling Co. See Bebb, H. T.
- Cantuniar, I. P. See Nenitzescu, C. D.
- Canzanelli, A., and Kozodoy, M., respiratory quotient of exercise in pancreatic diabetes, A., 1322.
- and Rapport, D., comparative effects on metabolism of intravenously injected tyrosine, di-iodotyrosine, di-iodothyronine, and thyroxine, A., 1337.
- See also Zimmermann, W.
- Capatos, L. See Karantassis, T., and Perakis, N.
- Capen, R. G., and LeClerc, J. A., chemical composition of native Alaskan hays harvested at different periods of growth, B., 650.
- Capilizer Holding Corporation. See Czarny, M.
- Caplan, M. See Beutner, R.
- Caplan, S., and Combustion Utilities Corp., purification of tar-acid-bearing oils; recovery of resin from residual oil, (P.), B., 535. Low-boiling tar acids, (P.), B., 1044.
- Cappelen-Smith, E. A., new chemical sewage-purification process, B., 686.
- Capps, H. H., and Dehn, W. M., desulphurisation of thiocarbamides by bromate and iodate solutions, A., 58.
- Caprio, A. F., and Celluloid Corp., decorated material, (P.), B., 31.
- Capron, P. C., automatic apparatus for determination of small quantities of sulphur dioxide in air, A., 248.
- and Rogmans, G., ionisation produced by  $\alpha$ -particles passing through the thin walls of a small sphere, A., 762.
- See also Mund, W.
- Capstaff, J. G. See Kodak, Ltd.
- Capt, E. See Benvegnin, L.
- Carbide & Carbon Chemicals Corporation, and Cox, H. L., alcoholic solutions used for engine-cooling systems and for similar closed circulating systems, (P.), B., 96.
- and Groff, F., plastic [vinyl] compositions, (P.), B., 357.
- and Law, H. G., reaction products of keten, (P.), B., 955.
- and Shriver, L. C., polymerisation of vinyl compounds, (P.), B., 880.
- See also Clapsadle, L. J., Cox, H. L., Davidson, J. G., and Reid, E. W.
- Carbo-Norit-Union Verwaltungen-Ges.m.b.H., extraction of dissolved or suspended liquids, and sparingly-soluble organic liquids in particular, contained, in small quantities, in effluent water, (P.), B., 334.
- Carborundum Co. See Benner, R. C., Forse, E. B., Soley, W. G., and Tone, F. J.
- Cardarelli, E. J. See Brooks, B. T.
- Carden, E. D., galvanic batteries, (P.), B., 113.
- Carding, D. M., interaction between soot films and oil, A., 1010.
- Carey, B. W., jun. See Trimble, H. C.
- Carey, C. A., and Dewey & Almy Chem. Co., preparation of [granular] soda-lime, (P.), B., 546.
- Carey, (Miss) P. C., and Smith, J. C., higher aliphatic compounds. III. Preparation of paraffins. IV. Systems with ethyl margarate and heptadecyl alcohol. V. Systems with heptadecyl alcohol and heptadecane; polymorphism of octadecane, A., 590, 782, 1271.
- Carey Manufacturing Co., P. See Fischer, A. C., Greider, H. W., Leshner, N., and Moeller, W. J.
- Cargo Fleet Iron Co., Ltd., and Caddick, A. J., ammonium sulphate from coke-oven gas and other gases obtained from the distillation of coal, (P.), B., 181.
- Cariteau, R. See Mousseron, M.
- Carl, B. E., aluminium chloride, (P.), B., 427.
- Carli, B. See Garelli, F., and Tettamanzi, A.
- Carlile, J. H. G., determination of nitrogen in coal by the Kjeldahl process, B., 898.
- Carlin, J. C., and Tennessee Products Corp., treatment of slag wool, (P.), B., 508.
- Carlini, (Mlle.). See Carrière, E.
- Carlisle, P. J., manufacture, handling, and use of hydrocyanic acid, B., 962.
- Harris, C. R., and Roessler & Hasslacher Chem. Co., treatment of hydrocarbons, (P.), B., 537.
- and Roessler & Hasslacher Chem. Co., alkyl chlorides in vapour phase, (P.), B., 216.
- Carlos, A. S., testing dog-biscuit flours, B., 122. Gluten determination, B., 443.
- Carlsmith, L. E., Boeckeler, B. C., Krichma, J. J., and Commercial Solvents Corp., recovery of ammonia from fermentation mash, (P.), B., 729.
- Carlson, E. T., system CaO-B<sub>2</sub>O<sub>3</sub>, A., 228.
- and Bates, P. H., chemical analyses of the particles of various sizes of ground cement, B., 388.
- Carlson, W. See Pagel, H. A.
- Carlsson, E., weak lines in the K-spectra of 42 Mo and 47 Ag. I., A., 332. Weak lines in the K-spectra of the elements 37 Rb to 42 Mo. II., A., 881. Dependence of focussing effect obtained with curved crystals in X-ray spectroscopes on the bending mechanism of the crystal, A., 1002.
- See also Sandström, A.
- Carlsson, G. E. See Hägglund, E.
- Carlton-Sutton, T., Griffin-Sutton combustion bomb for fuels, B., 900.
- Carmichael, C. M., and Shaw, G. S., acid-resisting steels in the sulphite[pulp] industry, B., 349.
- Carmody, W. H. See Thomas, C. A.
- Carnegie, D., jun., and Duratex Corp., coated fabric, (P.), B., 345.
- Carnochan, R. K., Rogers, R. A., and Cole, L. H., reports of investigations: [Canadian] non-metallic minerals section, B., 345.
- Caroline, (Miss) L. See Bacharach, G.
- Carolus, R. N., changes in green lima beans subjected to various storage conditions, A., 198.
- Caronna, G. See Oddo, G.
- Carothers, J. N., Huger, S. P., and Swann Research, Inc., phosphoric acid and calcium aluminate slag, (P.), B., 188.
- Carothers, W. H., acetylene polymerides and derivatives. XII. Addition of *p*-thiocresol to divinylacetylene, A., 695.
- and Berchet, G. J., acetylene polymerides and derivatives. VI. Magnesium vinyl ethynyl bromide and its reactions. X. Chlorination of the hydrochlorides of vinylacetylene. XV. 8-Halogeno- $\Delta^{\alpha\beta}$ -butadienes; mechanism of 1:4-addition and of  $\alpha\gamma$ -rearrangement. XVI. Preparation of orthoprenes by the action of Grignard reagents on 8-chloro- $\Delta^{\alpha\beta}$ -butadienes, A., 485, 590, 930.
- Collins, A. M., and Kirby, J. E., acetylene polymerides and derivatives. IV. Addition of hydrogen bromide to vinylacetylene: bromoprene [ $\beta$ -bromo- $\Delta^{\alpha\gamma}$ -butadiene] and  $\beta\delta$ -dibromo- $\Delta^{\beta}$ -butene. V. Polymerisation of bromoprene, A., 371.
- and Jacobson, R. A., acetylene polymerides and derivatives. VII. Sodium vinylacetylde and vinyl-ethynyl-carbinols, A., 485.
- See also Berchet, G. J., Coffman, D. D., and Jacobson, R. A.
- Carpanese, T., miucral deposits from Monte Rosso di Verra (Monte Rosa group). I. and II., A., 482, 588. Application of immersion method, A., 1026.
- Carpenter, C. F. See Gen. Electric Co.
- Carpenter, D. C., effect of light on bottled juices; apple and kraut juices, B., 1033.
- and Lovelace, F. E., isoelectric point of orange-seed globulin, A., 1116.

- Carpenter, D. C., Pederson, C. S., and Walsh, W. F., sterilisation of fruit juices by filtration. I, B., 169.  
and Walsh, W. F., commercial processing of apple juice, B., 41, 169.
- Carpenter, E. L. See Woolrich, W. R.
- Carpenter, S. C. See Pertzoff, V. A.
- Carpenter, T. M., effect of muscular exercise on the metabolism of ethyl alcohol, A., 633. Precise analysis of air from respiration chambers, A., 1064.  
and Lee, R. C., parallel determination of the respiratory quotient and alveolar air of man in the post-adsorptive condition, A., 520. Effect of glucose and of fructose on the human respiratory quotient and alveolar air, A., 520.
- Carpenter & Co., Inc., L. E. See Hutchman, J. E.
- Carpentier, A., liquid sulphur dioxide in sugar manufacture; economics in its use, B., 761.
- Carpentier, G., intensification by alkali carbonate or hydrogen carbonate of catalytic oxidation by traces of mineral substances, A., 574. Detection of nitrites in water by peroxide reagents, B., 494.
- Carpmael, A. See I. G. Farbenind.
- Carr, C. J., Musser, R., Schmidt, J. E., and Krantz, J. C., *jun.*, mannitol and mannitan in the animal body, A., 1326.  
See also Krantz, J. C., *jun.*
- Carr, F. H., and Jewell, W., characteristics of highly-active vitamin-A, A., 323.
- Carr, K. W., and Ditto, Inc., stencil sheets, (P.), B., 621. Stencil paper, (P.), B., 960.
- Carr, W. F. See Brooke, W. J.
- Carrara, G., pharmacological application of azoxy-compounds, A., 632.
- Carrasco, O., packing of ground coffee, B., 844.
- Carratalá, R. E. See Buzzo, A.
- Carré, P., mobilities of alkyl radicals in their chlorosulphites, A., 806.  
and Libermann, D., chlorides of aryl-sulphurous acids and the mixed aryl alkyl sulphites, A., 48. Mechanism of the reaction between phosphorus pentachloride and neutral alkyl sulphites, A., 256. Action of thionyl chloride on phenol, A., 389.  $\gamma$ -Hydroxy- $\alpha$ -phenylbutyric acid and its lactone, A., 392. Action of phosphorus pentachloride on neutral aryl sulphites, A., 499. Chlorides of alkyl-sulphurous acids, A., 696.
- Carrelli, A., and Went, J. J., Raman effect in liquids, A., 337.
- Carrera, J. L., calcæmia in dermatoses, A., 628.
- Carreró, J. G. See Montequi, R.
- Carrero, J. O., phosphoric acid in sugar canes, B., 86.
- Carrié, C. See Sehreus, H. T.
- Carrie, G. M., Craig, J. W., Lathe, F. E., and Halterdahl, A. C., spalling-resistant, refractory and chemically neutral brick, (P.), B., 20.
- Carrie, M. S., essential oil of *Dacrydium cupressinum*, B., 123.
- Carrier Engineering Co., Ltd., apparatus for treating air with water, (P.), B., 416.
- Carrière, E., and Carlini, (Mlle.), decomposition of thiosulphuric acid in dilute boiling solution, A., 241.  
and Liauté, R., determination of sulphurous acid and alkali sulphites by potassium permanganate, A., 582.
- Carrington, H. C., Haworth, W. N., and Hirst, E. L., sucrose and other disaccharides, A., 492.  
See also Anlt, E. G.
- Carroll, B. H., and Hubbard, D., mechanism of hypersensitisation, B., 252. Photographic emulsion, mechanism of hypersensitisation, B., 412.  
and Kretschman, C. M., photographic reversal by desensitising dyes, A., 682.
- Carroll, E. W. See Pike, R. D.
- Carroll, M. F., and Boake, Roberts & Co., Ltd., A., manufacture of a fertilising agent by the wet oxidation of coal, etc., (P.), B., 360.
- Carroll, R. H., and Smith, G. B. L., chloromethyl  $\beta$ -chloroethyl ketone ( $\alpha\delta$ -dichlorobutan- $\beta$ -one), A., 260.
- Carroll, S. J., and Eastman Kodak Co., cellulose acetate compositions containing mixed volatile solvents, (P.), B., 542. [Non-inflammable] cellulose acetate composition, (P.), B., 585. Cellulosic composition containing paraldehyde, (P.), B., 1051.  
See also Smith, H. B.
- Carruthers, A., determination of total sugar in liver tissue, A., 1066.
- Carson, F. L., and Pacific Lumber Co., pressed or filtered wood products, (P.), B., 743.
- Carson, F. T., and Worthington, F. V., new types of equipment for testing paper, B., 14.  
See also Snyder, L. W.
- Carson, G. C., treating sulphide ores and production of sulphuric acid thereby, (P.), B., 633. Production of sulphates from mixed sulphide materials and recovery of values therefrom, (P.), B., 828.
- Carswell, T. S., and Monsanto Chem. Works, isocugenol, (P.), B., 219.
- Carter, A. S. See Du Pont de Nemours & Co., E. I.
- Carter, B. C. See Knowles, J. R.
- Carter, C. See Imperial Chem. Industries.
- Carter, E. B. See Moore, E. E.
- Carter, J. H., X-ray investigation of the iron-copper system; corrosion of galvanised sheet iron, B., 231.  
See also Hughes, J. M.
- Carter, R., resistance element for hydrocarbon cracking processes, (P.), B., 420. Cracking and distilling fuels, (P.), B., 854.
- Carter, R. H., composition of commercially available fluorine compounds [insecticides], B., 244. Insecticides, (P.), B., 485.  
and Newcomer, E. J., arsenical residues found on apples in the Pacific North West throughout a season of typical spraying with lead arsenate, B., 937.  
See also Currie, J. N., and Newcomer, E. J.
- Carter, W., comparison of tobacco dust with other forms of nicotine in control of yellow spot disease of pineapples, B., 119.
- Carter, W. A. See Hopkins, R. H.
- Carter, W. D., spray mixture of liquid and gas, (P.), B., 289.
- Carter, W. K., and King, R. M., use of tribarium aluminate in structural clay products, B., 627.  
See also McIntyre, G. H.
- Cartland, G. F. See Swoap, O. F.
- Cartledge, G. H., and Djang, T. G., catalysis of Eder's reaction by cobalt compounds, A., 1018.  
and Goldheim, S. L., complex compounds in Eder's solution, A., 1118.
- Cartwright, C. H., radiation thermopiles for use at liquid air temperatures, A., 924.  
and Czerny, M., dispersion measurements for NaCl in the long-wave infra-red, A., 1104.
- Cartwright, H. M., and Murrell, H., photo-activity of dichromated colloids, B., 988.
- Cartwright, W. See Alkins, W. E.
- Caruthers, P. R. See Amsler, W. O.
- Carver, D. H. See Hurd, C. B.
- Cary, M. K. See Darrow, D. C.
- Cary, W. See Mallmann, W. L.
- Casaburi, V., stimulus of seed grain, B., 163. Stimulants and fungicides for seeds, (P.), B., 245.
- Case, A. E., comparison of moisture determinations in malt, B., 203.  
and Price, W. J., standardisation of Fehling's solution, B., 203. Determination of nitrogen in yeast, B., 203.
- Case, A. H., acid phosphate, (P.), B., 547.
- Case, F. H.,  $\gamma$ -iodopropyl chloride as a synthetic reagent; synthesis of  $\alpha$ -phenyl-dibasic acids, A., 949.
- Case, G. O., Ellis, E. M., and Montigue, L. H., hydraulic cement, (P.), B., 191.
- Case, L. O. See Bartell, F. E.
- Casein Manufacturing Co. of America, Inc. See Shisler, G. M.
- Cashman, R. J., and Huxford, W. S., photo-electric sensitivity of magnesium, A., 662.
- Casimir, E. [with Dimitriu, M., and Paşca, V.], chemistry of some menilite shales from the borders of the Flysch in East Carpathia, B., 948.
- Casimir, H., correspondence theory of line width, A., 548.
- Casolari, A., determination of fat in butter, B., 155. Isotonic watering of milk with saccharine solutions, B., 168.
- Casparis, P., and Févriér, C., saponin from *Orthosiphon*, A., 1343.
- Caspe, S., preparation of diethylisopropylamine, A., 55. By-product sodium morrhuate [salts of cod-liver oil fatty acids], B., 1017.
- Casper, W., aggressin of *Gonococcus*, A., 640.
- Cassa Autonoma a Monopolurilor Regatului Romaniei, and Rapeanu, S. Z., treating tobacco leaf, (P.), B., 172.
- Cassel, H., photo-effect and adsorption at the water-air boundary, A., 899.  
and Voigt, J., electrolysis of water under pressure, A., 677.
- Cassidy, H. G. See Holmes, H. N.
- Cassidy, P. R. See Babcock & Wilcox, Ltd.
- Cassie, A. B. D., structure of triatomic molecules, A., 450.  
and Bailey, C. R., infra-red and Raman bands of the carbon dioxide, carbonyl sulphide, and carbon disulphide molecules, A., 6. Infra-red region of the spectrum. VII. Infra-red grating spectrometer as a double monochromator, A., 112.  
See also Bailey, C. R.
- Cassoni, B. See Szegő, L.
- Castagna, S., and Talenti, M., glutathione in hens' eggs during incubation, A., 298.

- Castel, A. See Astruc, H.
- Castellano, J. See Collazo, J. A.
- Castiglioni, A., volumetric determination of free sulphur, A., 136. Colour reaction for nitrites, A., 136, 243. Detection of free sulphur, viscose silk, and the cyanide ion, A., 243. Formation of thiocyanates from cyanides [and analytical applications], A., 731. Quinoline and lignin, A., 732. Viscosity of solutions of camphor, A., 1006. Distinction of keto- from aldo-hexoses, A., 1145. Molisch's and Selivanov's reactions and their use for detecting sucrose in milk, B., 88. Examination of saffron and rhubarb in ultra-violet light, B., 284. Staining of pottery. II., B., 347. Integral utilisation of *Casalpinia spinosa* (Mol.) Kuntze, B., 597.
- Castle, E. S., refractive indices of whole cells, A., 1205. Physical basis of positive phototropism of *Phycomyces*, A., 1205.
- Castle, W. B. See Heath, C. W.
- Castles, R. See Miller, C. P., jun.
- Castro, L. V. See Oxford Varnish Corp.
- Castro, E. R., Santos, A. C., and Valenzuela, P., alkaloids of *Mahonia Philippinensis*, Takeda, A., 878.
- Castro, R., automatic Sprengel pump, A., 586.
- and Portevin, A., determination of oxygen and oxides in iron and steel, B., 348.
- Castro, R. J. See Meyer, O.
- Castro, T., changes in diastase of blood and urine after various types of surgical anaesthesia, A., 184.
- Castrovilli, G. See Bassi, U.
- Caswell, J. S., effect of surface finish on fatigue limit of mild steel, B., 830.
- Catalyst Research Corporation. See Bennett, O. G.
- Catalytic Process Corporation. See Clark, C. B.
- Catenacci, M., Italian molasses, B., 120.
- Cates, J., investigation of corrosion of iron by electron diffraction, A., 1022.
- Caton, L. T., amines of double chlorides, A., 579.
- Cattan, R. See Fiessinger, N.
- Cattaneo, L., passage of foetal hormones through the placenta (adrenal and posterior pituitary hormones), A., 1084.
- Cattaneo, P. See Deulofeu, V.
- Cauchois, (Mlle.) Y., high-tension electron tube, A., 248. Spectrography of X-rays by transmission of non-canalised rays across a curved crystal. II., A., 450.
- and Hulubei, H., X-ray emission spectra of gaseous elements: K-spectrum of krypton, A., 657. X-Ray emission spectra of gaseous elements: weak lines in K-spectrum of krypton, A., 1221.
- See also Hulubei, H.
- Caughy, J. E., elimination of tastes in the water supply at Wallaceburg [Ont.], B., 606.
- Caughy, F. G. See White, P.
- Caujolle, F., and Laffite, S., amylases. V. Activation by ethylamine hydrochloride, A., 1330.
- and Roche, P., amylases. IV. Influence of diamines and their hydrochlorides on the saccharification of starch by pancreas, saliva, and malt extract, A., 313.
- Caulaert, C. van, Aron, M., and Stahl, J., presence in blood and cerebrospinal fluid, and distribution in these liquids and in urine, of anterior pituitary hormone having an excitosecretory action on thyroid gland, A., 194.
- See also Aron, M.
- Caulfield, W. J., and Martin, W. H., use of vegetable stabilisers in ice cream, B., 843.
- See also McCammon, R. B.
- Caunt, W. A., low-temperature carbonisation of coal, (P.), B., 901.
- Cauquil, (Mlle.) G. See Godchot, M.
- Cavallini, G. See Bachstet, M.
- Caven, R. M., date and place of Priestley's discovery of oxygen. I., A., 802.
- and Gardner, W. K., equilibria in the systems  $(\text{NH}_4)_2\text{SO}_4\text{-NiSO}_4\text{-H}_2\text{O}$ ,  $(\text{NH}_4)_2\text{SO}_4\text{-CoSO}_4\text{-H}_2\text{O}$ ,  $(\text{NH}_4)_2\text{SO}_4\text{-ZnSO}_4\text{-H}_2\text{O}$ ,  $\text{Na}_2\text{SO}_4\text{-NiSO}_4\text{-H}_2\text{O}$ , and  $\text{Na}_2\text{SO}_4\text{-CoSO}_4\text{-H}_2\text{O}$ , at  $25^\circ$ , A., 1013.
- Cavers, T. W., and Lee, G. M., sintering of ore fines, flue dust, sulphide or other concentrates, (P.), B., 69.
- Cavett, J. W., and Holdridge, C. E., determination of chlorides in blood, A., 1182.
- Cavinato, A., thermal dilation in crystals and Haüy's law, A., 12. Metamorphism of quartzite of Sarrabus, A., 589.
- Cawley, C. M., hydrogenation of cresols and dihydric phenols, B., 260.
- Cawood, W., and Patterson, H. S., capillary depressions of mercury in cylindrical tubes and errors of glass manometers, A., 367. Compressibilities of certain gases at low pressures and various temperatures, A., 770.
- Cayeux, L., phosphate [rock] containing spicules of *Calcispongi* from the Ordovician of Wales, A., 252. Manner of occurrence of glauconite in calcareous media, A., 252. Constitution of Devonian phosphates of Tennessee, A., 482. Trilobites and palaeozoic phosphatic deposits, A., 588. Distinction between sedimentary and tectonic breccias, A., 802. Vegetable origin of palaeozoic calcium phosphates, A., 803.
- Cayo, E. F. See Hepburn, D. McK.
- Cayrel, J., new detector, A., 555.
- Cazaubon, E. See De Vilmorin, J.
- Cazaud, R., magnesium and its alloys, B., 66. Influence of cold-working (drawing) on fatigue limit of soft steel, B., 389. Fatigue resistance of casting alloys of aluminium, B., 1013.
- Cecchi, A. See Corbellini, A.
- Cecelsky, J. See Pongratz, A.
- Čech, J. See Landa, S.
- Čech, V. See Novák, J.
- Cederberg, I. W., catalytic combustion of ammonia with oxygen or gases containing oxygen, (P.), B., 785.
- and Oxyammon A.-G., preparation of concentrated nitric acid by the catalytic combustion of ammonia with oxygen or gases rich in oxygen, (P.), B., 426.
- Celanese Corporation of America. See Dreyfus, C., Platt, H., and Whitehead, W.
- Celastie Corporation. See McCormick, F. H.
- Celia, Ltd. See Under Drumm, J. J.
- Celite Corporation. See Calvert, R.
- Cellophane Société Anonyme [non-adherent] cellulose films, (P.), B., 264.
- Cellovis, Inc. See Wilson, W. C.
- Celluloid Corporation, moulded articles from cellulose derivatives, (P.), B., 356. Grinding, etc., of thermoplastic materials consisting of or containing cellulose derivatives, (P.), B., 357. Films, foils, sheets, etc., (P.), B., 503.
- See also Caprio, A. F., Petersen, A. E., and Walsh, J. F.
- Cellulose Acetate Silk Co., Ltd., Tyrer, C. C., and Anderson, H. G., artificial silk, (P.), B., 382.
- Cellulose Rosèn Société Anonyme. See Rosèn, G.
- Celotex Co. See Lathrop, E. C., and Munroe, T. B.
- Center, R. D., inductive electric heating in chemical plants, B., 154.
- Centnerszwer, M., and Levi, S., influence of temperature on the solution of pure thallium in nitric acid, A., 787.
- and Straumanis, M., rate of solution of carbonyl iron in hydrochloric and sulphuric acids, A., 33.
- and Szper, J., electrolysis of molten alkali cyanides, A., 471.
- and Trebacziewicz, T., composition and dissociation of thallium peroxide, A., 906.
- Wekerowna, (Mlle.) C., and Majewska, (Mlle.) Z., rate of evaporation of liquid in a stream of air, A., 772.
- Central Scientific Co. See Harrington, E. L., and Klopstet, P. E.
- Centrifex Corporation. See Hawley, C. G.
- Ceola, M. See Nembrot, A.
- Cerchez, V., and Ionescu-Muscel, J., formolite reaction [of mineral oils], B., 497.
- and Panaitescu, C., determination of water of crystallisation, A., 686.
- Cerecedo, L. R. See Allen, F. W., and Stekol, J. S.
- Cerf, H., nitroamines, A., 263.
- Cerf, J., comparison of principal constants used in determining the watering of milk, B., 90.
- Cerioti, A., bromatological analysis; vegetable condiments, B., 683.
- Čermák, J., differentiation between beet-refinery and beet-factory molasses, B., 806.
- Cerro de Pasco Copper Corporation. See Smith, W. C.
- Certain-Teed Products Corporation, plastic compositions [containing calcined gypsum], (P.), B., 550.
- See also Codwise, P. W.
- Cervello, M., oxychloride cement compositions, (P.), B., 107.
- Cesáro, G., two formulæ for replacing that of Fresnel in the calculations of crystallographic optics, A., 802.
- Cessi, T. See Crippa, G. B.
- Chabre, P. See Chevallier, A.
- Chabrol, E., Charonnat, R., Maximin, M., and Waitz, R., cholagogue action of guaiacol derivatives, A., 178.
- Chackrabarty. See under Chakravarti.
- Chadeloid Chemical Co. See Blyth, J. F., Bradley, T. F., Ellis, C., Lougovoy, B. N., and Root, F. B.
- Chadha, T. C., and Venkataraman, K., chromone group. VIII. Derivatives of o-hydroxy-, 2:5-dihydroxy-, and 2:4:5-trihydroxy-acetophenone, A., 1055.
- Chadshinov, V. N. See Maeh, G. M.
- Chadwell, H. M., and Titani, T., reactions of atomic hydrogen with alkyl halides, A., 578.



- Chadwick, J., the neutron, A., 1224.  
 Blackett, P. M. S., and Occhialini, G. P. S., now evidence for the positive electron, A., 441.
- Chadwick, R., physical properties of zinc at various stages of cold-rolling, B., 350.
- Chahnazaroff, D. A., petroliferous waters; means of fixation of hydrocarbons, A., 588.
- Chaignon, F. P. E., chemical control of fouling of air by carbon dioxide, B., 990.
- Chaikoff, I. L., and Robinson, A., foetal fat. I. Influence of high- and low-fat diets on quality of fat formed in the rat's foetus, A., 523.
- Chain, E. See Rona, P.
- Chain Belt Co. See Roddy, G. R.
- Chait, L. M., superphosphate from Krolviets phosphorites and from their mixtures with Podolian phosphorites, B., 305.  
 See also Gorshtein, G. I.
- Chaix, M., ultra-violet absorption of substances containing two benzene rings, A., 1227. Semi-micro-analysis, A., 1265.
- Chajkin, L. See Bobtelski, M.
- Chakraborty. See under Chakravarti.
- Chakravarti, A. K. See Goswami, M. N.
- Chakravarti, G. C. See Betrabet, M. V.
- Chakravarti, J. N., and Sen, A., mechanical analysis of lateritic soils, B., 401.
- Chakravarti, N. C. See Krishnan, K. S.
- Chakravarti, P. N., Mookerjee, H. C., and Guha, B. C., vitamin-A in fish-liver oils, A., 1211.  
 See also Guha, B. C.
- Chakravarti, S., Ananthavaidyanathan, N., and Venkatasubban, A., synthesis of 3:10-dimethoxytetrahydroprotoberberine, A., 169.  
 and Ganapati, K., Indian medicinal plants. II. Leaves of *Pithecolobium bigeminum*, A., 329.  
 and Nair, A. P. M., attempted synthesis of oxyprotoberberine and a synthesis of 3-methoxyoxyprotoberberine, A., 169.  
 and Venkatasubban, A., Indian medicinal plants. I. *Capparis horrida*, A., 329.
- Chakravarti, S. C. See Ray, P. R.
- Chakravorty. See under Chakravarti.
- Chalin, R. See Darmois, E.
- Chalklin, F. C., and Chalklin, L. P., wavelength determinations in the very soft X-ray region, A., 881.
- Chalklin, L. P. See Chalklin, F. C.
- Challansonnet, J., influence of titanium on cast iron, B., 869. Natural titanium-vanadium cast irons, B., 869.  
 See also Cournot, J.
- Challenger, F., formation of volatile arsenic compounds by moulds, A., 638.
- Higginbottom, (Miss) C., and Ellis, L., formation of organo-metalloidal compounds by micro-organisms. I. Trimethylarsine and dimethylethylarsine, A., 266.
- Chalmers, B. See Andrade, E. N. da C.
- Chalmers, W., preparation of ethers of vinyl alcohol, A., 144. Polymerisation of vinyl ethers, A., 144.
- Chalonge, D., and Lefebvre, (Mme.) L., extension of ultra-violet absorption spectrum of ozone towards greater wave-lengths, A., 997.
- and Vassy, E., blue and violet spectra of hydrogen molecule, A., 879.
- Chambadal, P., fractional degassing of hot and cold waters in the Claude-Boucherot process, B., 1039.
- Chamberlain, N. H. See Speakman, J. B.
- Chamberlain, R. N., and Amer. Container Corp., composition for battery boxes, (P.), B., 795.
- Chamberlin, D. S. See Cobb, R. M.
- Chamberlin, F. S., barium fluosilicate as a control for the tobacco flea-beetle, B., 518.  
 See also Crumb, S. E.
- Chambers, G. H., explosive primer compositions, (P.), B., 685.
- Chambers, L. A. See Flosdorf, E. W.
- Chambers, R., Beck, L. V., and Green, D. E., intracellular oxidation-reduction studies. V. Comparison of intact and cytolysed starfish eggs by the immersion method, A., 1073.  
 and Cameron, G., intracellular oxidation-reduction studies. VII. Secreting cells of the mesonephros in the chick. VIII. Cytoplasm and vacuole of *Limnobium* root-hair cells, A., 627, 650.  
 See also Pandit, C. G.
- Chambers, V. H. See Buston, H. W.
- Chambers, W. H. See Dann, M.
- Chambers Bros. Co. See Ritchie, R. E.
- Chamié, (Mlle.) C., diffusion of recoil atoms in air, A., 551.  
 See also Rosenblum, S.
- Chaminade, R., action of lime on soils and correction of acidity, B., 1071.
- Champagne, M. See Terroine, E. F.
- Champetier, G., action of solutions of orthophosphoric acid on cellulose, A., 597. Additive compounds of cellulose, A., 1038. Fixation of water by cellulose, B., 142.
- Champion Coated Paper Co. See Lauder-man, V. A.
- Champion Fibre Co. See Helder, H. A., and Murdock, H. R.
- Champion Porcelain Co. See Jeffery, J. A.
- Chance, T. M., separation of materials of different sp. gr. [e.g., coal from refuse], (P.), B., 180, 416\*, 608. Apparatus for separation of materials of differing densities, (P.), B., 816.
- Chancogne, M. See Kanner, O.
- Chanderkar, D. V. See Paranjpe, D. R.
- Chandlee, G. C. See Knapper, J. S., and Scholl, A. W.
- Chandler, J. P. See Jaffe, H. J.
- Chandler, W. L., and Merck & Co., iodine composition [vermicide], (P.), B., 732.
- Chandrasena, J. P. C., products of *Cocos nucifera*. II., A., 650. Isolation of crystalline atisine, A., 841.
- Chaney, N. K., and Nat. Carbon Co., treatment of alimentary products, (P.), B., 811. Treatment [purification] of water, (P.), B., 894.
- Chang, C. Y. See Schnette, H. A.
- Chang, D. V., and Tseng, C. L., reaction between oximinooacetophenone and magnesium phenyl bromide in ether solution, A., 276.
- Chang, F. T. See Mannich, C.
- Chang, H. See Speakman, J. B.
- Chang, H. C., tissue-acetylcholine. II. Acetylcholine content of Collip's oestrogenic placental extract, A., 1067.  
 and Chang, H. L., gastric secretion of normal Chinese, A., 412.  
 and Wong, A., tissue-acetylcholine. I. Origin, significance, and fate of acetylcholine in human placenta, A., 1067.
- Chang, H. L. See Chang, H. C.
- Chang, S. T., boundary layer and diffusion potential of dilute electrolytes, A., 468.
- Chang, T. H., Gerard, R. W., and Shaffer, M., *in vitro* respiration of nerve, A., 527.
- Chang, T. Y. See Lottermoser, A.
- Channon, H. J., and El Saby, M. K., fat metabolism of the herring. I., A., 183.  
 See also Mahdi, M. A. H. E.
- Chanutin, A., and Kinard, F. W., muscle-creatinine and creatinine coefficient, A., 296.  
 and Ludewig, S., effect of cholesterol ingestion on tissue-lipins of rats, A., 1193.
- Chanzy, J., can [hardening] cracks [in steel] be avoided? B., 469.
- Chao, C. L. See Ze, N. T.
- Chao, S. S. See Reiner, L.
- Chapin, E. S., Jacoby, A. H., and Deltex Co., treating and ageing fabrics, (P.), B., 545.
- Chapin, W. J., and Chicago Steel Foundry Co., metallurgical device [for annealing and carburising gears], (P.), B., 632.
- Chapin, W. R., cementing tungsten carbide to other metals, (P.), B., 432.
- Chapluign, B. A. See Petrov, A. D.
- Chapman, A. D. See Lindgren, R. M.
- Chapman, A. G., effects of varying amounts of nitrogen on growth of tulip poplar seedlings, B., 982.
- Chapman, A. T. See Johnston, Herrick L.
- Chapman, A. W., and Howis, C. C., Beckmann change. I. Spontaneous rearrangement of oxime picryl ethers, A., 952.
- Chapman, C. M., bonding of cement and gypsum, (P.), B., 589.
- Chapman, C. W. See Morell, C. A.
- Chapman, D. L., and Watkins, J. S., photochemical union of chlorine and hydrogen in presence of oxygen, and relative rates of formation of water and hydrogen chloride in illuminated mixtures of the three gases rich in oxygen, A., 915.
- Chapman, E. C. See Shohl, A. T.
- Chapman, F., origin of tektites, A., 802.
- Chapman, P. E. See Murray, D. G.
- Chapman, J. See Wilson, F. J.
- Chapman, R. P., and Hammett, L. P., continuous air-lift extractor; application to determination of benzoic acid, A., 1135.  
 See also Walden, G. H., jun.
- Chapman, W. R., comparison of processes for cleaning of coal, B., 178.
- Chappell, F. L., drying of casein, (P.), B., 811.
- Chappell, M. L., Dowlen, T. H., and Richfield Oil Co. of California, oxidation of oils, (P.), B., 538.  
 and Standard Oil Co. of California, treatment of hydrocarbons with a chlorinated hydrocarbon in the presence of a metallic halide, (P.), B., 614. Production of hydrocarbon products [gasoline, lubricating oil] by action of a metallic halide and a partially chlorinated mineral oil of the carbocyclic series, (P.), B., 740.  
 See also Halloran, R. A.
- Chappell, W. See Davidson, A. W.
- Charaux, C., and Rabaté, J., biochemistry of *Salix*. V. *iso*Salipurposide, A., 544.  
 See also Bridel, M.



- Charch, W. H., and Du Pont Rayon Co., [sizing and tinting] treatment of [artificial silk] textile threads, (P.), B., 1053.
- Charczenko, P. See Jouravsky, G.
- Chargaff, E., lipins of bacillus Calmette-Guérin (BCG), A., 867. Chemistry of bacteria. V. Fat and phosphatide of diphtheria bacteria, A., 983.
- and Dieryck, J., pigments of *Sarcina lutea*, A., 97. Chemistry of bacteria. III. Lipin content of various types of tubercle bacillus, A., 190.
- Charin, A. N., significance of surface area in phenomena of exchange adsorption, B., 981.
- Chariton, J. B. See Bresler, S. E.
- Charles, A. F., and Scott, D. A., action of methyl iodide on insulin, A., 321.
- See also Scott, D. A.
- Charles, D., some [photographic] intensification tests, B., 173. Fine-grain experiment, B., 653.
- Charles, J. H. V., Raistrick, H., Robinson, R., and Todd, A. R., biochemistry of micro-organisms. XXVIII. Helminthosporin and hydroxyisohelminthosporin, metabolic products of the plant pathogen *Helminthosporium gramineum*, Rabenhorst, A., 752.
- Charlesworth, E. H., Chavan, J. J., and Robinson, R., synthesis of pyrylium salts of anthocyanidin type. XX. Morindin chloride; cyanomaclurin, A., 613.
- and Robinson, R., anthoxanthins. XIII. Synthesis of a colouring matter of *Robinia pseudacacia*, A., 510.
- Charlesworth, S. I., and Harris, A. W., laboratory distillation apparatus, (P.), B., 848.
- Harris, A. W., and Linder, C. P., [laboratory] distillation apparatus, (P.), B., 449.
- Charlot, G., catalytic oxidation of organic compounds in the vapour state. I. Toluene, its derivatives and homologues. II. Various compounds, A., 680, 1019.
- Charlton, D. B., chlorine-tolerant bacteria in water supplies, B., 686.
- Charlton, E. E. See Gen. Electric Co.
- Charmandarian, M. O., and Brodovitch, K. I., vanadium and manganese catalysts in sulphuric acid manufacture, B., 962. Preparation of barium chloride. I. From chlorine and barium sulphide. II. From chlorine and barium sulphate. III. From hydrogen chloride and barium sulphate, B., 963.
- and Dachniuk, G. D., platinum catalyst on silica gel, A., 1253.
- and Kopeliovitch, E. L., adsorption of benzene vapour from air on alkaline, neutral, and acid silica gels, A., 1242.
- Kopeliovitch, E. L., and Burjak, A. E., dry process for recovery of sulphur from hydrogen sulphide, B., 964.
- and Markov, V. K., influence of reaction of the medium during coagulation on structure of silica gel. I., A., 1244.
- and Martschenko, G. V., reduction of iron oxide to metallic iron with hydrogen, B., 230. Preparation of sodium ferrite by Löwig's process. I., B., 962.
- and Pervuschin, B. I., phenomena occurring on moving one electrode in the electrolyte, and the electrokinetic potential, A., 1248.
- Charmandarian, M. O., and Prichodko, G. V., catalytic production of chlorine from hydrogen chloride, B., 964.
- and Sivoplias, L. I., conservation of filter-press cloth, B., 943.
- Charonnat, R. See Chabrol, E., and Delaby, R.
- Charrier, G., and Ghigi, E., action of magnesium alkyl iodides on 1:9-benzanthrone(-10), A., 160. Action of ammonia on acenaphthenequinone, A., 162.
- Charrin, V., low-temperature distillation of Bayac brown coal, B., 899.
- Charriou, A., increase of sensitivity of photographic emulsions by electrophoresis, A., 792. Influence of alkali iodides on liability of photographic emulsions to solarisation, B., 333.
- Chase, B. W., and Lewis, H. B., metabolism of sulphur. XX. Rate of absorption of *dl*-methionine from the gastrointestinal tract of the rat, A., 1075.
- Chase, E. F., acetic acid-acetate buffers in potassium chloride and sodium chloride solutions using the quinhydrone electrode A., 1015.
- Chase, H. A. See Richter, G. A.
- Chase, W. D. See Jackson, R. F.
- Chase Companies, Inc. See Crampton, D. K.
- Chassel, A. See Rosenbaum, S.
- Chatain, H. G., and Northern Labs., Inc., heat-transfer device, (P.), B., 847.
- Chataway, H. D., determination of moisture in honey by hydrometer method, B., 728.
- Chatelain, P. See Bruhat, G.
- Chatelet, M., molecular association of pyridine and iodine, A., 835. Iodine-pyridine-water complexes, A., 835.
- Chatfield, V. M., and Sun Oil Co., heat exchanger, (P.), B., 608.
- "Chatillon" Società Anonima Italiana per la Seta Artificiale, dry-spinning of artificial fibres, (P.), B., 860.
- Chatron, M., composition of sweat collected in Turkish baths, A., 1320.
- Chatrov, E. S., possibility of using hydroxy-acids obtained by oxidation of paraffin in textile industry, B., 661.
- Chattaway, F. D., and Ashworth, D. R., action of bromine on nitrobenzene-azoacetates and related compounds, A., 705. Action of chlorine on the nitrobenzeneazoacetates, A., 1156. Action of chlorine on the 3-carbethoxy-4-hydroxy-1-nitrophenylpyrazoles, A., 1307.
- and Goepf, R. M., condensation of formaldehyde with *p*-nitrophenol, A., 817.
- and Irving, H., 2:4:6-trichloroaniline, A., 387.
- Irving, H., and Outhwaite, G. H.,  $\alpha\beta$ -trihalogenobutaldehydes, A., 1036.
- Kerr, M. T., and Lawrence, C. G., condensation of chloral with tolyl- and nitrophenyl-carbamides, A., 269.
- and Lye, R. J., action of bromine on arylazobenzoylacetones, A., 706.
- Chatterjee, A. See Mukherjee, J. N.
- Chatzet, V. E. See Kiselev, V. S.
- Chaudhri, R. M., ionisation of mercury vapour by positive ions of mercury and potassium, A., 1097.
- Chaudhury, S. G., variation of the charge of copper ferrocyanide hydrosol in presence of electrolytes and non-electrolytes, A., 1116.
- and Ray-Chaudhury, S., mechanism of coagulation of colloids, A., 777.
- Chaudron, G. See Girard, A., Hérenghuel, J., Herzog, E., and Jolibois, P.
- Chaudun, (Mlle.) A., comparative hydrolysis of polysaccharides by invertase, A., 1330.
- See also Colin, H.
- Chaussain, M., tempering of quenched case-hardened steels, B., 967.
- See also Cournot, J.
- Chaussin, J. See Blanchard, E.
- Chauvenet, E., and Avard, P., determination of barium in ferriferrous minerals, B., 151.
- and Boulanger, (Mlle.) J., combination between zirconyl bromide and alkali bromides, A., 1021.
- Chavan, J. J., and Robinson, R., anthoxanthins. XIV.  $\omega$ -Hydroxyphloracetophenone and derivatives; synthesis of galangin under milder conditions than those used heretofore, A., 613.
- See also Charlesworth, E. H.
- Chaze, J., new active principle in *Bryonia dioica*, A., 105. Exudation of alkaloids of *Lupinus albus*, A., 329. Presence of anthocyanins or oxyflavones in aleurone grains of *Gramineae*, A., 544. Cytology, microchemistry, and micrographics of the tobacco plant, A., 647.
- Chebotaev, L. P., and Texas Co., refining of petroleum distillates, (P.), B., 538.
- Checucci, G. M., localisation of nitrate in sugar-beet culture, B., 164.
- Chechik, S., derivatives of tribromoethanol (avertin). II., A., 47. Bromo-derivatives of thymoquinol, A., 1045.
- Czechliński, T. See Dziewoński, K.
- Cheesman, G. H., and Emeléeus, H. J., ultra-violet absorption spectra of phosphine, arsine, and stibine, A., 207.
- Cheesman, T., treatment of coal tar, (P.), B., 214.
- Cheetham, H. C., and Bakelite Corp., preparation of plastic compositions, (P.), B., 277.
- Cheftel, H. See Mächebœuf, M. A.
- Cheifetz, V. A., removal of coloured layer (brass) from plated iron-ware cuttings, B., 970.
- Chemical Construction Corporation, and Hechenbleikner, I., treatment of sludge acid, (P.), B., 1045.
- See also Hechenbleikner, I.
- Chem. Engineering Corporation. See Jones, L. C.
- Chem. Holding Corporation. See Richter, W. F.
- Chem. Treatment Co., Inc. See Tyrrell, W. A.
- Chemicon Akt.-Ges., and Gammay, H., resins soluble in oil, (P.), B., 238.
- Chemieprodukte Ges.m.b.H., and Schade, P. F., protecting metal objects, etc., normally exposed to atmospheric conditions, (P.), B., 395.
- Chemipulp Process, Inc. See Dunbar, T. L., Kenety, W. H., Stevens, J. W., and Strindlund, J.
- Chemische Fabrik J. A. Benckiser G.m.b.H., and Reimann, A., neutral sodium pyrophosphate, (P.), B., 748.
- Chem. Fabr. Buckau, potassium carbonate, (P.), B., 227. Decomposition of complex salts composed of double sulphates of potassium and calcium, (P.), B., 266.
- Chem. Fabr. Budenheim Akt.-Ges., preparation of calcined tri-alkali phosphates, (P.), B., 427. Sodium metaphosphate suitable for use in baking powders, (P.),

- Chem. Fabr. Budenheim Akt.-Ges.—*cont.*  
B., 464. Rinsing, cleansing, and fat-removing agents, (P.), B., 477. Preparation of cleansing agents, (P.), B., 477.
- Chem. Fabr. von Heyden Akt.-Ges., aromatic [hydr]oxy-compounds and aromatic [hydr]oxy-carboxylic acids, (P.), B., 140. Dehydration of phenols and mixtures containing phenols, (P.), B., 777. [Hydr]oxydiphenyl ether carboxylic acids, (P.), B., 778. Tertiary organic phosphates, (P.), B., 964. See also Feibelman, R., and Hoessle, C. H. von.
- Chem. Fabr. Kalk G.m.b.H., and Oehme, H., preparation of a mixed fertiliser containing easily assimilable phosphates and nitrogen, (P.), B., 119. Oehme, H., and Herrmuth, E., preparation of a mixed fertiliser containing easily assimilable phosphates and nitrogen, (P.), B., 86. See also Oehme, H.
- Chem. Fabr. S. Kroch Akt.-Ges., and Epstein Akt.-Ges., J. H., leather, (P.), B., 320.
- Chem. Fabr. L. Meyer, field weed killer, (P.), B., 202.
- Chem. Fabr. Pott & Co. See Muller, R.
- Chem. Fabr. vorm. Sandoz, treatment of natural and artificial cellulose fibres with alkali [mercerising liquors], (P.), B., 15. Sulphurised derivatives of phenols, (P.), B., 140. Complex metallic organic compounds, (P.), B., 172. Stable [organic] antimony compounds, (P.), B., 205. Wetting, cleaning, and emulsifying agents, (P.), B., 297. Iodonaphthol-sulphonic acids [therapeutic agents], (P.), B., 812. Soluble [organic] calcium salts, (P.), B., 892, 939.
- Chem. Fabriken K. Albert Ges.m.b.H., synthetic resins, (P.), B., 115.
- Chem. & Seifenfabrik R. Baumheier Akt.-Ges., sulphonated oils and fats, (P.), B., 76. Sulpho-acids, (P.), B., 156. Resin emulsions, (P.), B., 200. Dressing or sizing of paper, (P.), B., 302. Impregnation of fabrics with soaps [for water-proofing], (P.), B., 303.
- Chem. Werke vorm. H. & E. Albert, alumina and alkali phosphates, (P.), B., 386.
- Chem. Werke Marienfelde Akt.-Ges., clarification of liquids, (P.), B., 656.
- Chen, A. L., and Chen, K. K., constituents of Wu Chü Yü (*Evodia rutacarpa*), A., 1093. See also Chen, K. K.
- Chen, C. S. See Sah, P. P. T.
- Chen, K. K., and Chen, A. L., poisonous secretions of twelve species of toads, A., 530. Pharmacological action of amines related to ephedrine and tryptamine, A., 1197.
- Chen, A. L., and Chou, T. Q., pharmacological action of peimine and peiminine, A., 1077.
- Jensen, H., and Chen, A. L., physiological action of the principles isolated from secretion of the common European toad (*Bufo bufo bufo*), A., 530. Physiological action of the principles isolated from secretion of the European green toad (*Bufo viridis viridis*), A., 1197. Physiological action of the principles isolated from secretion of the Japanese toad (*Bufo formosus*), A., 1197. Physiological action of the principles isolated from secretion of *Bufo arenarum*, A., 1197. See also Chen, A. L.
- Chen, P. S. See Huston, R. C.
- Chen, T. T. See Ball, E. G., and Stiehler, R. D.
- Chenault, R. L. See Foote, P. D.
- Chenel, L. A., variation of the exchange coefficient [of nitrocellulose] with temperature, B., 252.
- Cheney Bros. See Stiegler, H. W.
- Cheng Ling Liu. See King, C. V.
- Chenicek, G. W. See Moore, J. E.
- Cherbuliez, E., variable composition of casein and its rôle in manufacture of cheese, B., 986. and Meyer, Fr., casein. II., A., 843. Destruction of organic matter prior to determination of phosphorus and sulphur, A., 843. and Schneider, M. L., fractionation of caseinogen by ammonium chloride, A., 519. and Trusfuss, I., determination of amino acids and peptones in blood-serum, A., 1181.
- Chernin, S. See Terentiev, A.
- Chernobuilski, I. I., and Nitchenko, A. F., drying [sugar-beet] pulp with a Büttner dryer, B., 440.
- Chernozhukov, N. I., comparison of bleaching clays, B., 655. and Zuikov, V. K., acid sludge, B., 135.
- Chernyak, M. G. See Kitaigorodski, I. I.
- Cherry, L. B., and C. & C. Developing Co., treating hydrocarbons [by distillation], (P.), B., 139.
- Cherry, O. A., Kurath, F., and Economy Fuse & Manufg. Co., preparation of potentially reactive phenolic condensation products, (P.), B., 317. [Plasticiser] composition of matter, (P.), B., 929. Reaction product of rosin, aromatic amines, and furfuraldehyde, (P.), B., 929.
- Cherry-Burrell Corporation. See Feldmeier, H.
- Cherry Tree Machine Co., Ltd., and Dowell, G., rotary-chamber drying machines [for laundries, etc.], (P.), B., 368.
- Cheshire, B. J., printing of sulphur dyes on cotton, B., 303.
- Chesley, K. G. See Anderson, H. V.
- Chesny, H. H., formation of sodium bicarbonate, (P.), B., 385. and Amer. Potash & Chem. Corp., precipitation of sodium bicarbonate from solutions in the form of coarse crystals, (P.), B., 385.
- Chester, K. S., precipitin reactions in plants. I. Specificity of the normal precipitin reaction. II. Nature of the normal precipitin reaction, A., 1344. and Whitaker, T. W., precipitin reaction in plants. III. Biochemical analysis, A., 1344.
- Chesterman, D. R., co-ordination compounds of chromic chloride, A., 919.
- Chesters, J. H., and Parmelee, C. W., burning of magnesite bricks. I., B., 916. and Weyl, W., drying of magnesite bricks: volume changes accompanying hydration, B., 548.
- Chetverikov, N., cellulose from cotton hulls, B., 142.
- Chevalier, J. See Bruère, P.
- Chevallier, A., and Chabre, P., determination of vitamin-A in oils, A., 540. Determination of vitamin-A in oils by a spectrophotometric method, A., 540.
- Chevallier, P. See Rosenblum, S.
- Chevallier, R., and Pierre, J., thermomagnetic properties of volcanic rocks, A., 141.
- Chevenard, P., industrial dilatation pyrometers, B., 348. Hardening of austenitic nickel-chromium steels, B., 509.
- Cheymol, J., apparatus for removal of supernatant liquids in centrifuge tubes, A., 1027.
- Chi, Y. F., and Tien, Y. L., pyrimidines; molecular rearrangement of 6-thiocyanato-2-ethylthiol-5-phenylpyrimidine; synthesis of 5-phenylcytosine, A., 1307.
- Chibnall, A. C. See Damodaran, M., and Jordan, R. C.
- Chicago Club, relative merits of spray and brush painting, B., 976.
- Chicago Mill & Lumber Corporation. See Mizener, L. A.
- Chicago Paint Co. See under Eisenstein, J.
- Chicago Steel Foundry Co. See Chapin, W. J.
- Chichester, D. F. See Russell, W. C.
- Chick, H., aetiology of pellagra, A., 1071.
- Chicos, J. See Nenitzescu, C. D.
- Chidester, F. E., ferrous iodide and linoleic acid in vitamin-A deficiency, A., 99.
- Chigison, S. C., acid-proof cementing compositions, (P.), B., 229.
- Chihara, K., antibodies in the fibrinogen of immune serum, A., 176.
- Child, C. D., luminosity of sodium flames, A., 1221.
- Childs, A. T. See Gen. Electric Co.
- Childs, E. C., and Massey, H. S. W., scattering of electrons by metal vapours. I. Cadmium, A., 1097.
- Childs, W. H. J., absorption measurements and transition probabilities for the A (0,0) and B (0,1) bands of oxygen, A., 107. Equivalent widths in the A and B bands of oxygen, A., 1095.
- Chilikin, M. M., indigoid dyes, A., 73. and Sussmann, M. N., stability of water-proofing agents prepared from aluminium compounds, B., 59.
- Chilowsky, C. See Soc. des Proc. Chilowsky.
- Chilson, W. A., Simmonds, F. A., Baird, P. K., and Curran, C. E., influence of stock temperature and pH on kraft paper sized with a special starch, B., 1002.
- Chilton, D., and Rabinovitch, Eugen, spectrum of iodine in adsorbed state, A., 2.
- Chinchalkar, S. W., magnetic birefringence in liquid mixtures, A., 889.
- Chinkin, N. N., iron ore for the central [Russian] metallurgical industry, A., 1031.
- Chinoir Fabrik Chemisch-Pharmaceutischer Produkte Akt.-Ges., and Wolf, E., [alkoxy]derivatives of benzyloquinoline, (P.), B., 92. Aluminium derivatives of acetylsalicylic acid, (P.), B., 172. New alkaloid from ergot, (P.), B., 412.
- Chinoy, J. J. See Dastur, R. H.
- Chioza, L. See Marza, V. D.
- Chipman, J., equilibrium in the oxidation of liquid iron by steam and free energy of ferrous oxide in liquid steel, A., 1014. and Murphy, D. W., free energy of iron oxides, A., 466.
- Chipman Chemical Co., Inc. See Webster, B. P.
- Chippendale, H. G., effect of chemicals on germination in cocksfoot (*Dactylis glomerata*, L.), B., 1028.
- Chirita, C. D., nutrient content of forest humus layer in relation to underlying mineral stratum and its significance in fertility of soils, B., 517.

- Chiriteșeu-Arya, *M.*, chemical characteristics of tobacco from varieties grown in Rumania, B., 411.
- Chirkov. See under Tschirkov.
- Chirnoagă, *Eugen*, titration of iodine in presence of iodide and iodate, A., 1260.
- and Chirnoagă, *Eugenia*, iodine and aqueous solutions of ammonia, A., 1129.
- Chirnoagă, *Eugenia*. See Chirnoagă, *Eugen*.
- Chisholm, *H. M.* See Bronson, *H. L.*
- Chistyakova, *F. M.* See Schaposhnikov, *V. N.*
- Chittick, *M. B.*, and Pure Oil Co., varnish and paint oil manufacture, (P.), B., 755.
- Chittum, *J. W.* See Glatfield, *J. W. E.*
- Chirudoglu, *G.*, stereoisomeric 1:2-dithylcyclopentanes, A., 1282.
- Chiwaki, *J.*, influence of diet and vitamins on blood-glycolysis. II. Glycolysis and the distribution of free and combined cholesterol. III. Glycolysis in rabbits fed on polished rice, A., 756.
- Chizhevski, *M. G.*, decomposition of organic matter in soils related to nature of the absorbed cations, B., 82.
- Chizhevski, *N. P.*, and Poputnikov, *F. A.*, coking of hard coal with the addition of coke dust, B., 209.
- Chlopin, *N. I.*, potentiometric determination of chromic anhydride in chromiumping baths, B., 432.
- Chlopin, *V. G.*, and Pasvik-Chlopin, *M. A.*, determination of at. wt. of potassium separated from peas, A., 102.
- and Tolmatshev, *P. I.*, distribution of solute between crystalline solid and liquid phases. VII., A., 20.
- Chloride Electrical Storage Co., Ltd., and Harrison, *R. T.*, synthetic resin moulding powders, (P.), B., 277.
- Chloupek, *J. B.*, formation of syngenite, A., 692. Simple method for spectroscopic characterisation of organic dyes and other coloured substances, A., 844. Decomposition of permanganic acid in the presence of acids, A., 919. Thermal decomposition of manganous carbonate and its products, A., 1022.
- Daneš, *V. Z.*, and Danešova, *B. A.*, higher-valency ions and activity. I. Relation between higher charge ions and deviations from the Debye-Hückel theory. II. Discussion on the basis of the Poisson-Boltzmann equation, A., 26, 351. Solubility of calcium iodate in water and in aqueous solutions of electrolytes, A., 1111.
- Chmutov, *K.*, and Shukov, *I.*, optimum temperature of decomposition of chloropierin vapours in registering their passage through heated tubes, A., 255.
- Choay, *A.*, presence and conservation of biological properties in organic powders, B., 987.
- Chobot, *R.* See Stull, *A.*
- Chodat, *F.*, and Junquera, *M.*, endocellular hydrogen donors of yeast and their variation with the age of the culture, A., 1205.
- and Wyss-Chodat, *F.*, dehydrogenases during staphylolysis; method of evaluating bacterial lysis, A., 1207.
- Choi, *K. N.*, and Barker, *E. F.*, infra-red absorption spectrum of hydrogen cyanide, A., 208.
- Cholak, *J.* See Kehoe, *R. A.*
- Cholerton, *C.*, and Shellastic, Inc., [resilient] moulded articles, (P.), B., 721.
- Chollet, *A.*, and Camus, *A.*, reductase test applied to casein coagulated by rennet, B., 409.
- Cholnoky, *L. von*. See Zechmeister, *J.*
- Chopin, *M.*, influence of locality on baking value of wheat, B., 362.
- Chopra, *N. D.*, copper alloys [substitutes for bronze], (P.), B., 1063.
- Chorazy, *M.* See Swientoslawski, *W.*
- Chon, *T. Q.*, and Chen, *K. K.*, alkaloids of Chinese drug *Pei-mu*, *Fritillaria roylei*. II. Fritimine, A., 652.
- and Wang, *G. H.*, alkaloids of Chinese *Corydalis ambigua*, Cham. et Sch. (Yen-hu-so). IV. *Corydalis-J* and *-K*, A., 652.
- See also Chen, *K. K.*
- Choubert, *G.* See Jouravsky, *G.*
- Choucroun, (*Mlle.*) *F.*, arrangement for electrophoresis, A., 461.
- Choudary, *K. S.*, *Terminalia pallida* as a tanning material, B., 319.
- Choulant, *H.*, corrosion-resistance of the dental alloy "Chrogo U42," B., 24.
- Chow, *B. F.* See Conant, *J. B.*
- Chow, *J.* See Sah, *P. P. T.*
- Chow, *T. C.*, spectrum of sulphur dioxide, A., 1227. New system of bands in sulphur dioxide, A., 1227.
- and Smyth, *H. D.*, emission and absorption spectra in sulphur dioxide, A., 444.
- See also Smyth, *H. D.*
- Chowdhury, *J. K.*, and Basu, *N. N.*, comparison of jute and cotton celluloses, A., 493.
- Chowdhury, *M. R.*, Desai, *R. D.*, Hunter, *R. F.*, and Solangi, *F. M. K.*, effect of substituents on bromination of diaryl- $\psi$ -thiohydantoins; application of theory of singlet linkings to formation of polybromide complexes by heterocyclic compounds, A., 1311.
- Chrétien, *A.*, and Laurent, *P.*, dielectric constant as a means of organic analysis, A., 60.
- Chrisco, *H. F.*, White, *A. M.*, and Baity, *H. G.*, effect of precipitants on textile waste liquors, B., 942.
- Christ, *R.* See Hurd, *C. D.*
- Christensen, *A.*, rotary furnaces for combustion of town refuse, etc., (P.), B., 366, 414. [Fibre making processes] method of sulphite pulping, B., 381.
- Christensen, *B. V.*, [ethyl] alcohol-soluble extractive of benzoin, myrrh, and asafoetida, B., 411.
- Christensen, *L. M.*, and Commercial Solvents Corp., fermentation of cellulosic materials, (P.), B., 281, 649.
- McCutchan, *W. N.*, and Commercial Solvents Corp., production of acids by fermentation of cellulosic material, (P.), B., 682.
- See also Fulmer, *E. I.*, and Legg, *D. A.*
- Christensen, *N. C.*, apparatus for compressing gases, (P.), B., 770. Treatment of [zinc] sulphide ores, (P.), B., 793. Precipitation of zinc sulphide and manufacture of zinc sulphide pigments, (P.), B., 793. Treatment of oxidised [lead-zinc] ores, (P.), B., 793.
- Christensen, *P. C.*, [leather-gum coating] composition and production thereof, (P.), B., 1020.
- Christensen, *R. J.*, soft X-ray critical potentials of beryllium, A., 1097.
- Christian, *W.* See Warburg, *O.*
- Christiani, *A. von*. See Späth, *E.*
- Christiansen, *W. G.*, Harris, *S. E.*, and Squibb & Sons, *E. R.*, [C]-dialkylresorcinols [germicides], (P.), B., 956.
- Jones, *W. S.*, Moness, *E.*, and Squibb & Sons, *E. R.*, obtaining vitamin concentrates from fats, (P.), B., 1034.
- Jurist, *A. H.*, and Squibb & Sons, *E. R.*, preparation of aminopyrine borate in combination with acetone, (P.), B., 983. Antipyretic compositions containing aminopyrine [pyramidone], (P.), B., 1036.
- Moness, *E.*, and Squibb & Sons, *E. R.*, obtaining of vitamin concentrates from fats, (P.), B., 684.
- See also Lauter, *W. M.*
- Christie, *J. L.* See Webster, *W. R.*
- Christman, *C. C.* See Deulofeu, *V.*
- Christmann, *L. J.*, and Amer. Cyanamid Co., [lactic] esters from nitriles, (P.), B., 218. *tert.*-Amine antioxidants [for rubber], (P.), B., 240. Carbazole antioxidant [for rubber, etc.], (P.), B., 240. Measuring froth, (P.), B., 371.
- Falconer, *S. A.*, and Amer. Cyanamid Co., froth flotation [promoters] for [zinc and copper] ores, (P.), B., 111.
- Jayne, *D. W., jun.*, and Amer. Cyanamid Co., xanthates, (P.), B., 139. Preparation of [sec.-butyl xanthates], (P.), B., 218.
- Walker, *G. B.*, and Amer. Cyanamid Co., froth flotation [promoters] for [zinc and copper], (P.), B., 111.
- See also Falconer, *S. A.*, and Romieux, *C. J.*
- Christomanos, *A. A.*, ethyl sulphide formation; fractionation of neutral sulphur of urine, A., 850.
- Christoph, *E.* See Deines, *O. von*.
- Christoph, *W.*, and Hanle, *W.*, mechanism of the Geiger-Müller counter, A., 996.
- Christopher, *A. J.*, and Bell Telephone Labs., inductive device, (P.), B., 715.
- Christopher, *E. F.*, De Benkelae, *F. L.*, and Swift & Co., preparation of glue products, (P.), B., 932.
- Christova, (*Miss*) *T.* See Ivanov, *D.*
- Christy, *A. L.* See Harnsberger, *A. E.*
- Chrobak, *L.*, X-ray scattering power of silver for  $K\alpha$  copper radiation, A., 440.
- Chrometzka, *F.*, purine metabolism in man, A., 742, 1195.
- Chrzaszcz, *K.*, variations in fat content of milk following change from stall to pasturage, A., 83.
- See also Richter, *K.*
- Chrzaszcz, *T.*, and Janicki, *J.*, determination of starch-liquefying power of amylase, A., 313. "Sisto-amylase," a natural inhibitor of amylase, A., 749. Eleutoamylase, an anti-sistoamylase, A., 980. Amylase and sisto-amylase in malts from various grains, A., 1080. Real and apparent amount of diastase in various cereals before and during germination, A., 1343.
- and Pisula, *F.*, degradation and consumption of protein by moulds, A., 1332.
- and Zakomorny, *M.*, biochemical transformation of sugar by action of moulds; transformation of fumaric acid, accumulation of formic acid, and chemistry of oxalic acid production, A., 536. Biochemical transformation of formic acid by moulds; chemistry of the process, A., 982.
- Chu. See Travers, *A.*

- Chu, E. J. H., and Tseng, C. L., oxidation of *d*-glutamic acid by chromic acid and by acid permanganate, A., 1148.  
See also Tseng, C. L.
- Chu, T. T., and Marvel, C. S., proof of unsymmetrical structure of the azoxy-group, A., 945.
- Chuang, C. K., constitution of ergosterol, A., 391.
- Chubb, S. E. See Bakelite, Ltd.
- Chubb, W. F., oxygen in cast iron, B., 1058.
- Chudinov, O. P. See Reiman, M. A.
- Chudožilov, L. K. See Veselý, V.
- Chuinard, F. G. See Manville, I. A.
- Churakov, M. V., rapid determination of copper in brass, aluminium alloys, etc., B., 431.
- Church, A. E. See Norris, E. R.
- Church, J. M. See Whitmore, F. C.
- Churoh, J. W., Elledge, H. G., and Pure Calcium Products Co., by-product whitening, (P.), B., 427. Precipitated calcium carbonate, (P.), B., 546.
- Churchill, H. V., handling of distilled water in aluminium, A., 926.  
and Aluminum Co. of America, cleaning composition [for aluminium], (P.), B., 835.
- Churchill, J. B., and Williams, E. T., hazards of gas leakage as affected by ventilation, B., 895.
- Churchill, R. L., and Eastman Kodak Co., crystallising lacquer comprising tribromoanisole, (P.), B., 837.
- Chute, A. L., and Irving, L., effect of acid feeding on composition of bone, A., 305.  
See also Irving, L.
- Chylinski, S., magnetic spectra of secondary electrons from silver, A., 3. Scattering of hard X-rays by solids, A., 548.
- Cialtikian, O. See Gambarjan, S.
- Ciechocki, J., diffusion of positive ions of salts through copper at high temperature; mass spectrograph analysis of emitted ions, A., 3.
- Ciechocki, M. See Smolénski, K.
- Ciechowski, J. See Krause, A.
- Cigarev, G., mulching for the control of soil vermin, B., 1028.
- Cimerman, C. See Wegner, P.
- Cincinnati-Dayton-Indianapolis Club, effects of driers on durability, B., 975.
- Cini, M., dry residue of milk determined indirectly by Fleischmann's formula, B., 1031.
- Ciocca, B. See Contardi, A.
- Ciochina, I., condensation of the hydrocarbons in illuminating oil, B., 901.
- Cioffi, P. P., and Bell Telephone Labs., Inc., magnetic material, (P.), B., 394. Heat-treating furnace [for magnetic materials], (P.), B., 711.  
See also Electrical Research Products.
- Cirulis, A. See Fischer, W. M.
- Cissarz, A., and Moritz, H., distribution of metal in Mansfield blast-furnace products and its geochemical significance, B., 1011.
- Clitovich, E., gasification of solid fuel under very high pressures, and use of gas so produced in internal-combustion engines, (P.), B., 376.
- Citrus Preservation Committee, progress report (Oct., 1932), B., 164.
- Cittert, P. H. van. See Burger, H. C.
- Ciusa, R., and Musajo, L., Doebner reaction, XI., A., 616.
- Ciusa, W., enzymic formation of acetoin. II. From proteins, A., 314.
- Claassen, A., and Burgers, W. G., X-ray proof of [existence of]  $ZrW_2$ , A., 1003.  
and Veenemans, C. F., vapour pressures of  $BaO$ ,  $SrO$ ,  $CaO$ , and their mixtures from measurements of velocity of evaporation, A., 344.
- Claassen, H., economics of production of sugar from wood, B., 121. Heating surfaces in [sugar-factory] evaporators, B., 519. Preparation of yeast for fodder, B., 888. Boiling of [sugar] syrups to massecuites; evaporation of viscous solutions, B., 1075.
- Claborn, H. V. See Clark, E. P.
- Clack, B. W., diffusion of electrolytes, A., 566.
- Clässon, H., weak lines in the *L*-spectra of 79 Au and 74 W, A., 1096.
- Clafin, D. See Albright, F.
- Clafin, H. C. See Beryllium Development Corp.
- Clague, J. A., and Fellers, C. R., time, temperature, and humidity relationships in pasteurisation of dates, B., 1032.  
See also Fellers, C. R.
- Clamer, G. H. See Neuhauss, H.
- Clapham, E. L., centrifugal hydro-extractors, etc., (P.), B., 897.
- Clapham, H. W. See Imperial Chem. Industries.
- Clapham, J. E. See Imperial Chem. Industries.
- Clapp, A. L., treatment [strengthening and waterproofing] pulp articles and material therefor, (P.), B., 302. Surface-finishing of paper or fibre board, (P.), B., 302. Paper-article manufacture, (P.), B., 302.
- Clapp, C. W. See Robertson, J. K.
- Clapsaddle, L. J., and Carbide & Carbon Chemicals Corp., foam-prevention agent, (P.), B., 954.
- Clar, E., aromatic hydrocarbons. XIX. Regularities in structure of absorption spectra of aromatic hydrocarbons, A., 269.  
and Haurowitz, F., constitution of the porphyrins, A., 404.  
See also Brass, K.
- Clark, A. J. See Robertson, Jean.
- Clark, A. W. See Kertesz, Z. I.
- Clark, B. B., and Gibson, R. B., bicolorimetric determination of methaemoglobin, A., 520.  
See also Paul, W. D.
- Clark, B. F., structure of  $\alpha$ -chlororesorcinol, A., 270.
- Clark, C. B., and Amer. Cyanamid Co., concentration of weak phosphoric acid, (P.), B., 964.  
and Catalytic Process Corp., [contact] sulphuric acid, (P.), B., 702.  
See also Gen. Chem. Co.
- Clark, C. L., dispersion of soil-forming aggregates, B., 482.
- Clark, D. N., Gatty, O., Hughes, O. L., and Hartley, (Sir) H. B., effect of acetaldehyde on conductivities of electrolytes in ethyl alcohol, A., 784.
- Clark, E. P., tephrosin. III. Acidic derivatives of tephrosin, A., 396. Occurrence of rotenone and related compounds in the roots of *Cracca virginiana*, A., 650. Micro-analytical methods, A., 731. Electrically heated sand-bath, A., 1027. Semimicro-determination of carbon and hydrogen, A., 1063.  
and Claborn, H. V., tephrosin. II. Iso-Tephrosin, A., 69.
- Clark, E. P., and Keenan, G. L., occurrence of dehydrodeguelin and dehydrotoxicarol in derris root, A., 329.
- Clark, E. W. See Willaman, J. J.
- Clark, F. L., effect of electrolytes on clay slips, B., 228.  
See also Burrows, G.
- Clark, F. M., rôle of dissolved gases in determining the behaviour of mineral insulating oils, B., 212. Electrical breakdown of liquid dielectrics, B., 1016.  
See also Brit. Thomson-Houston Co., and Gen. Electric Co.
- Clark, G. C. H. See Howards & Sons, Ltd.
- Clark, G. L., a decade of applied X-ray research, B., 433.  
and Corrigan, K. E., crystal structure of insulin, A., 1235.  
See also Andrews, A. I., and Sisson, W. A.
- Clark, H. N., and Refractory & Eng. Corp., [heat-insulating] cement, (P.), B., 63.
- Clark, J. & A., determination of dirt in pulp and paper, B., 743.
- Haznburg, R. S. von, and Knoll, R. J., estimation of dirt and shives in pulp and paper, B., 300.
- Clark, J. D., and Williams, John Warren, electrical conductivity of commercial dielectrics and its variation with temperature, B., 313.
- Clark, J. W., and Neuberger Chem. Corp., [road-surfacing] materials, (P.), B., 629.
- Clark, K. A., and Pasternack, D. S., hot-water separation of bitumen from Alberta bituminous sand, B., 134.
- Clark, K. G., Gaddy, V. L., and Rist, C. E., system ammonium carbamate-carbamide-water, A., 1246.
- Clark, L. F., centrifuge, (P.), B., 528.
- Clark, L. H. See Rees, W. J.
- Clark, L. M., and Price, L. S., rôle of sodium aluminate in accelerating separation of solid phases during water-softening operations, B., 254.
- Clark, L. Marshall, absorption spectra of 2:2-dimethyl- and 2:3-diethyl-sclenocarbocyanine iodides and of *p*-dimethylaminostyrylbenzthiazole methiodide, A., 516.
- Clark, L. V., diazodinitrophenol, a detonating explosive, B., 653.  
See also Holderer, G. B.
- Clark, M. E. See Gilbert, R.
- Clark, N. A., manganese and the growth of *Lemma*, A., 649. Organic matter and life of the green plant, A., 767. Determination of small amounts of manganese in salt solutions, A., 923.
- Clark, R. H., and Archibald, R. M., effect of certain chemicals on hydrolytic activity of *Ricinus* and pancreatic lipase, A., 426.
- Clark, W. M. See Stiehler, R. D.
- Clarke, A. F., apparatus for treating hydrocarbons, (P.), B., 456.
- Clarke, B. L., and Wooten, L. A., determination of calcium in lead-calcium alloys of low calcium content, B., 1062.
- Clarke, (Miss) D. V. See Gardner, J. H.
- Clarke, F. J., and Clarke, S. G., machine for making cream-like compositions from butter or substitute, (P.), B., 811.
- Clarke, G. W. See Standard Telephones & Cables, Ltd.
- Clarke, H., constant-temperature control circuit, A., 1264.

- Clarke, H. T. See Kodak, Ltd., and Palmer, J. W.
- Clarke, Hans T., Malm, C. J., and Eastman Kodak Co., cellulose esters of carboxylic acids, (P.), B., 699. Acetone-soluble formyl esters of cellulose, (P.), B., 720.
- Othmer, D. F., and Eastman Kodak Co., dehydration of formic acid, (P.), B., 216.
- See also Webb, W. R., and Zahnd, H.
- Clarke, I. D., and Frey, R. W., folding endurance tester for light leathers, B., 358. Fat distribution in the bend portion of greasy hides and leather, B., 980.
- See also Frey, R. W.
- Clarke, R. B. F. F. See Imperial Chem. Industries.
- Clarke, S. G., detection and significance of porosity in electro-deposited cadmium coatings, B., 923. Thickness of protective cadmium coatings, B., 923.
- See also Clarke, F. J.
- Clarke, S. W., and Friend, W. H., California red scale and its control in the Lower Rio Grande valley of Texas, B., 324.
- Clarke, Sidney W. See Brown, John R.
- Clarke, W. G., and Moore, B. H., flotation of tailings from Bellevue Mine, Mt. Sir Samuel, W. Australia, B., 922. Flotation tests on a sample of tailings from Maldon, Victoria, B., 922. Treatment of sulphide ore from the Lanehead Gold Mine, Beria, W. Australia, by flotation, B., 970. Treatment of slimes from Tasmania mine, Beaconsfield, Tasmania, B., 971. Treatment of cyanide sand residues from the White Hope Gold Mine, Hampton Plains, B., 971. Cyanidation of tailings, B., 971. Treatment of tailing from the Floater Gold Mine, Ravensthorpe, B., 971.
- Clarke, W. M. See Hellerman, L.
- Clauberg, A. See Roesch, K.
- Clauberg, C., Thiel, H. W., and Ziecker, R., detection of the luteohormone (specific hormone of the corpus luteum) in human tissue and body-fluids, A., 870.
- Claudatus, J., carbon and nitrogen in blood-filtrate and cerebrospinal fluid, A., 524.
- See also Barrenseheer, H. K.
- Claude, A., chemicals active in increasing tissue permeability and enhancing infectious processes, A., 1078.
- Claude, D. See Hackspill, L.
- Claude, G., extraction of dissolved gases in the Claude-Boucherot process, B., 1. Industrial oxygen, B., 105. [Fractional degassing of hot and cold waters in the Claude-Boucherot process], B., 1039.
- Claude-Lumière Société Anonyme pour les Applications des Gaz rares à la Lumière, Procédés G. Claude, electric gaseous [arc-discharge devices, (P.), B., 197.
- Claude Neon Lights, Inc. See Peck, L. L.
- Claus, G. See Mach, F.
- Claus, W. D., enhanced lethal effects of X-rays on *Escherichia coli* in presence of inorganic salts, A., 641.
- Clausing, P., electrical resistance of titanium and zirconium nitrides and a new resistance effect, A., 9.
- Clausmann. See Guichard.
- Claussen, R. A., six-inch paper-lined dry cell, B., 925.
- and Olin, H. L., new organic addition agents for cadmium electroplating, B., 233.
- Claussen, W. H. See Yost, D. M.
- Clavel, (Mme.) J. See Leulier, A., and Roehaiz, A.
- Clavera, J. M., and López, M. O., iodo-metric acid values of fats, B., 434.
- and Ocaño, A., neutralisation of tobacco smoke, B., 892.
- See also Fernández, F.
- Clawson, C. D. See Ebright, H. E.
- Claxton, G. See Hoffert, W. H.
- Clay, H. See Hodgson, H. H.
- Clay, J., earth's magnetic effect and corpuscular nature of cosmic ultra-radiation. IV., A., 335.
- Clay Reduction Co. See Svendsen, S. S.
- Clayton, B., refining of fatty oils, (P.), B., 513.
- Clayton, E., synthetic resins and anti-cresol cellulose materials, B., 15.
- Clayton, R. H. See Manchester Oxide Co.
- Clayton, W., emulsion persistence, A., 23. Food contamination, B., 937.
- Cleary, E. J. See Rudolfs, W.
- Cleary, W. D., and De Laval Separator Co., [electrical] moisture detector, (P.), B., 717.
- Cleaver, J. M., dry concentration of ore, (P.), B., 234.
- Clegg, J. H. See Stanworth, S.
- Clemencon, C., treatment [crêping] of artificial silks, (P.), B., 860.
- Clemencon, V. C., and Schmit, P., crêpes with threads of cellulose acetate artificial silk, (P.), B., 664.
- Clemencon, V. C. See Clemencon, C.
- Clément, L., Rivière, C., and Beck, A., coloration of cellulosic derivatives by aqueous iodine solutions, B., 697.
- Clement, L. E., and Eastman Kodak Co., separation of cellulosic materials [esters by gravity], (P.), B., 585.
- Clement, R. See Lesné, E.
- Clementson, C. & S. See Gullander, N. H.
- Clemmedson, B. A., and Abrahamsson, H. V., treatment of milk or cream, (P.), B., 249.
- Clemo, G. R., and Ormston, J., Reformatsky reaction with compounds of the ethylene oxide type, A., 607. Structural changes produced in the selenium dehydrogenation method. I. Ring changes in *spiro*-compounds, A., 610.
- and Ramage, G. R., octahydropyrrocoline, A., 164.
- Ramage, G. R., and Raper, R., lupin alkaloids. VI., A., 169.
- and Raper, R., lupin alkaloids. VII. Structure of lupinane and sparteine, A., 841.
- Clensol, Ltd. See Piper, W. H.
- Clephane, P. F. F. See Edwards, A.
- Clermont, J., quantitative emission-spectral analysis. IV. Determination of zinc in pure aluminium and aluminium alloys, B., 310.
- Cleveland, M. M. See Fellers, C. R.
- Cleveland Club, comparison of high-solvent value petroleum solvents, B., 949.
- Clews, F. H., Booth, H., and Green, A. T., hot-patching of gas retorts. I. Application of cements, B., 147.
- and Green, A. T., permeability of refractory materials to gases; experiments with fireclay and silica products. I. At ordinary temperatures. II. At temperatures up to 500°. IV. At temperatures up to 850°, B., 147, 787.
- Clibbens, D. A., and Geake, A., periodic variations in hank-processed yarn, and patterns produced by them in stocking fabrics, B., 666. Examination of mercerised hosiery yarns, B., 666.
- See also Calvert, M. A.
- Clickner, F. H., and Endowment Foundation, preparation of egg powder, (P.), B., 890.
- Clifton, L. E. See Meloche, V. W.
- Cliff, H. S., new autographic load-extension recorder [for textile yarns and fibres], B., 1050.
- See also Ridge, B. P.
- Cliff, I. S. See Huntress, E. H., and Milas, N. A.
- Cliffe, W. H., aliphatic keto-anils, A., 1305.
- Clifford, A. M. See Goodyear Tire & Rubber Co.
- Clifford, I. L., and Hunter, E., system ammonia-water at temperatures up to 150° and at pressures up to 20 atmospheres, A., 228.
- Clifford, J. L., and Steadfast Rubber Co., Inc., leather substitute and base material therefor, (P.), B., 502.
- Clifford, W. M., effect of halogen salts on tryptic digestion, A., 749.
- Clift, F. P., and Cook, R. P., triose-dehydrogenase. I., A., 187. 2,4-Dinitrophenylhydrazones of ketonic acids of biological importance, A., 489. Determination of biologically important aldehydes and ketones with special reference to pyruvic acid and methylglyoxal, A., 491.
- Cline, J. K. See Major, R. T.
- Clinton Corn Syrup Refining Co. See Corson, G. E., and Pattillo, D. K.
- Cliquet, R., Guilbert, J., and Péneau, H., industrial preparation of doubly-distilled water; physico-chemical characteristics of water, B., 1087.
- Cloos, C., generator for producing acetylene under pressure, of the type "carbide into water," (P.), B., 52.
- Clopatt, J. A., energy values of linkings in organic substances, A., 450.
- Clora-Fabrikate Cloetta & Co. m.b.H. See Thaler, E.
- Close, H. G., chloride and water in constitution of tissues, A., 1067.
- Closmann, E. A., [rotary drum-screen] apparatus for extracting substances [e.g., caffeine] from vegetables or vegetable matter [e.g., coffee beans], (P.), B., 43.
- Closs, J. O. See Mendelssohn, K.
- Closs, K. See Mackay, E.
- Clough, O. W., effects of saliva on growth of *Bacterium coli*, A., 1206.
- Clouston, D., establishment of pasture on virgin peat, B., 323.
- Cloutier, L., precipitation of basic lead salts and metallic phosphates, A., 240.
- See also Jolibois, P.
- Cluett, S. L. See Cluett, Peabody & Co.
- Cluett, Peabody & Co., Inc., and Cluett, S. L., [shrinking machine for] cloth finishing, (P.), B., 426.
- Clusius, K., origin of zero-point entropy, A., 16. Preparation of liquid hydrogen with neon as intermediary, A., 36. Transitions in solidified gases, A., 1000.
- Clutterbuck, P. W., Lovell, R., and Raitrick, H., biochemistry of micro-organisms. XXVI. Formation from glucose by members of the *Penicillium chrysogenum* series of a pigment, an alkali-soluble protein, and penicillin, A., 189.

- Clutterbuck, P. W., and Raistrick, H., biochemistry of micro-organisms. XXX. and XXXI. Molecular constitution of the metabolic products of *Penicillium brevis-compactum*, Dierckx, and related species. II. Mycophenolic acid, A., 949.
- Clyne, C. B., and Internat. Precipitation Co., collecting electrodes for electrical precipitators [for gases], (P.), B., 675.
- Coahran, J. M., continuously recovering and concentrating [pyrolygneous] chemicals, (P.), B., 371. Method of extraction or other countercurrent treatment, (P.), B., 530.
- Coal Carbonization Co. See McQuade, J. D.
- Coals & Chemicals, Ltd. See Trumble, M. J.
- Cobb, A. See Gilbert, E. C.
- Cobb, J. F., dry kiln, (P.), B., 815.
- Cobb, J. W. See Bolland, C. B., and Roberts, A. L.
- Cobb, R. M., Chamberlin, D. S., and Dombrow, B. A., emulsified paraffin wax sizes, B., 949.
- Cobbe, H. N. G., [sluice-box for] recovery of values from alluvial material, (P.), B., 236.
- Cocchinaras, N. E., hydrogenation of linsed oil, B., 75.
- Cocco, A., new method of aminating organic compounds, A., 263.
- Coch, G. See Thiel, A.
- Cockcroft, J. D., magnet for  $\alpha$ -ray spectroscopy, A., 367. Disintegration of elements by high-speed protons, A., 1225.
- and Walton, E. T. S., disintegration of light elements by fast protons, A., 111.
- Cocker, W. See Buckley, H. E.
- Cockerham, G., variations in the total nitrogen content of normal and leaf-roll potatoes, A., 653.
- Cockerill, R. F. See Bachmann, W. E.
- Cockrell, W. L., alloy for corrosive service, B., 921.
- Cockrill, J. R. See Albright, F.
- Coco, B. A. See Condorelli, P.
- Code, G. A., Stevens, E. E., Pitman, I. S., Code, M. R., Ovenshire, C. E., and Baker, W. C., steel, (P.), B., 67.
- Code, M. R. See Code, G. A.
- Codwise, P. W., and Certain-Teed Products Corp., [roofing, etc.], felt, (P.), B., 265.
- Coe, H. S., decantation apparatus, (P.), B., 529.
- Coe, J. R., jun. See Gillespie, L. J.
- Coe, M. R., preservation of foodstuffs or other materials against rancidity, (P.), B., 91.
- Coehn, A., electricity transport by oxygen in metals, A., 9.
- and Sperling, K., protons in the conductivity of metals. III. The photographic plate as indicator, A., 768.
- Coen Companies, Inc. See Zoul, C. V.
- Coester, C., oestrus-producing and luteinising action of preparations of the anterior lobe of the pituitary, A., 194. Lipin substances of the adrenals. I. Method of treatment of the adrenals and elucidation of fatty portion, A., 523.
- See also Dieterle, H.
- Coeterier, F., determination of Landé's  $g$ -factor by means of the Einstein-de Haas effect with pyrrhotine, A., 548.
- Coff, M. See Andrews, E.
- Coffari, E., causes of errors in determination of carbon, hydrogen, and nitrogen, A., 843.
- Coffin, C. C., simple automatic pressure regulator, A., 1136.
- See also Peiker, A. L.
- Coffman, D. D., number of stereoisomeric and non-stereoisomeric alkenes, A., 371.
- and Blair, C. M. [with Henze, H. R.], number of structurally isomeric hydrocarbons of the acetylene series, A., 254.
- and Carothers, W. H., acetylene polymericides and their derivatives. XIII. Action of chlorine on divinylacetylene, A., 694.
- Nieuwland, J. A., and Carothers, W. H., acetylene polymorides and their derivatives. XIV. Dihydrochloride of divinylacetylene, A., 694.
- Tsao, J. C. Y., Schniepp, L. E., and Marvel, C. S., trialkylethynylcarbinols, A., 1140.
- Cofman, V., cancer problem from the physico-chemical viewpoint, A., 85. Indefinite concepts in colloid science, A., 673. Apparatus for determining rate of solution and other physical constants, (P.), B., 370.
- See also Rhodes, H. T. F.
- Coframet Société Anonyme, aluminium and barium or strontium compounds, (P.), B., 669.
- Cohen, A., alkaloid cuprichlorides; specific precipitation by cupric chloride of cinchona alkaloids containing the vinyl group, A., 1061.
- King, H., and Strangeways, (Miss) W. I., trypanocidal action and chemical constitution. XIV. Relative velocity of oxidation of arylarsenoxides, A., 130.
- Cohen, E., and Boekhorst, L. C. J., *et al.*, supposed allotropy of liquid nitrobenzene, A., 12.
- and Cohen-De Meester, W. A. T., Andrae's methods for the accurate determination of the density of solids, A., 481.
- and Thönnessen, C., influence of degree of dispersion on physico-chemical constants, A., 19.
- Cohen, J., salicylic acid as a fixative, A., 1218.
- Cohen, J. B., preparation of sodium argentothio glycerol-sulphonate (Lumière's compound), A., 144.
- See also Ashley, J. N., and Browning, C. H.
- Cohen, L., toxicity of arsenious oxide, A., 1079.
- Cohen, R. See Bell, F.
- Cohen, W. E., analysis of termite (*Eutermes exitiosus*) mound material, A., 1193.
- and Jamieson, A. B., manganese content of Australian timbers, A., 875.
- Cohen-De Meester, W. A. T. See Cohen, E.
- Cohn, B. E., luminescence and crystalline structure, A., 446.
- Cohn, B. N. E., and Stöhr, R., serum-calcium in guinea-pigs after small doses of parathormone, A., 1336.
- Cohn, D. J., Levinson, A., and McCarthy, F., physiological variations in glucose ratio of blood and cerebrospinal fluid, A., 845.
- Cohn, E. See Ebert, Fritz.
- Cohn, H., non-poisonous town gas, (P.), B., 214.
- Cohn, L., obtaining fibres from plants [by freezing], (P.), B., 383.
- Cohn, R. See Bobtelski, M.
- Coil, F., composition of leucoseue in the Permian of Oklahoma, A., 1029.
- Coile, H. D. See Werkman, C. H.
- Colas Products, Ltd., Gabriel, L. G., Blott, J. F. T., Peard, W. L., Firman, L. W. G., Meunier, L., and Minne, J. L., *van der*, treatment of materials capable of undergoing dispersion in water and obtaining aqueous dispersions therefrom, (P.), B., 455.
- Terry, A. G., and Briggs, L., rotary kilns or dryers, (P.), B., 735.
- Colbeck, E. W., MacGillivray, W. E., and Manning, W. R. D., mechanical properties of austenitic stainless steels at low temperatures, B., 590.
- Colburn, A. P., mean temperature difference and heat-transfer coefficient in liquid heat exchangers, B., 815.
- Colburn, F. See Bird, P.
- Colby, H. L., seasonal absorption of nutrient salts by the French prune grown in solution cultures, A., 648. Effects of starvation on distribution of mineral nutrients in French prune trees grown in culture solutions, A., 1214.
- Colby, M. Y., X-ray diffraction patterns of mixtures, A., 1238.
- and Harris, S., effect of etching on relative intensities of components of double Laue spots obtained from a quartz crystal, A., 557.
- and LaCoste, L. J. B., crystal structure of cerussite, A., 215.
- Cole, G. H. See Westinghouse Electric & Manufg. Co.
- Cole, G. M. See Phillips, W. M.
- Cole, H. T., *Xanthorrhoea* and its resin, B., 199.
- Cole, J. R. See Alben, A. O.
- Cole, K. S., and Cole, R. H., heat loss from Dewar flasks, A., 44.
- Cole, L. E. See Burkey, H. M.
- Cole, L. H. See Carnochan, R. K.
- Cole, R. H. See Cole, K. S.
- Cole, R. M., apparatus for making dyes, etc., (P.), B., 1000.
- Cole, S. S., relation of crushing strength of silica brick at various temperatures to other physical properties, B., 18.
- Cole, S. W., determination of reducing sugars by titration of ferri cyanide, A., 844.
- Cole, W. H., and Allison, J. B., stimulation by hydrochloric, sulphuric, and nitric acid in the sunfish, *Eupomotis*, A., 532. Stimulation by mineral and fatty acids in the barnacle, *Balanus balanoides*, A., 979.
- Coleman, C., and Naugatuck Chem. Co., vulcanisation of rubber, (P.), B., 1070.
- Coleman, C. A., [tunnel] kiln, (P.), B., 867.
- Coleman, E. D., extraction of vegetable oils, (P.), B., 398.
- Coleman, G. H., reaction of alkylchloroamines with Grignard reagents, A., 939.
- and Buchanan, M. A., nitrogen trichloride and Grignard reagents, A., 812.
- Buchanan, M. A., and Paxson, W. L., reaction of nitrogen trichloride with Grignard reagents, A., 1147.
- and Dow Chem. Co., preparation of ethylidene chloride, (P.), B., 998. Separation of *o*- and *p*-phenylphenols [2- and 4-hydroxydiphenyls], (P.), B., 1000.



- Coleman, G. H., Soroos, H., and Yager, C. B., reaction of monobromoamine with Grignard reagents, A., 702.
- Coleman, J. A. See Coleman, S. P.
- Coleman, R. E. See Brit. Thomson-Houston Co.
- Coleman, S. P., Coleman, J. A., and Standard Oil Development Co., preparation of water-soluble sludge acid, (P.), B., 853.
- and Standard Oil Development Co., treating crude oil, (P.), B., 614. Naphthenic compounds [from lubricating oil distillate], (P.), B., 695.
- Coleman, W. H., motor benzol, B., 773.
- Coles, G., and Graham, J. I., effect on oxidisability of heat treatment (partial distillation) of fine and lump coal, B., 899.
- Coles, H. L., and Guardian Metals Co., ferrous alloys [manganese-chromium steel], (P.), B., 432.
- Coley, F. B., and Dorr Co., application of liquid to filter cakes, (P.), B., 529.
- Coley, H. E., zinc white, (P.), B., 556.
- Colgate-Palmolive-Peet Co. See Lamont, D. R.
- Colin, H., better [sugar-beet] crops, B., 839.
- and Augier, J., soluble sugars of *Lemanea nodosa*, Kütz., A., 652. Floridoside, trehalose, and glycogen in red, freshwater algae (*Lemanea*, *Sacheria*), A., 989.
- and Belval, H., raffinose in cereals, A., 875.
- and Chaudun, (Mlle.) A., Tanret's "synanthrin," A., 652. Acid inversion of sucrose in presence of neutral salts, B., 202.
- and Quillet, M., jelly of the egg of *Phallus impudicus*, A., 329.
- Colin-Russ, A., determination of fat and water-soluble [matter] in leather. IV. Further experiments with systems: leather-solvent, B., 642.
- Colla, C. See Ferrari, A.
- Collander, R., permeability in *Chara ceratophylla*. I. Normal composition of cell sap, A., 545.
- and Bärhund, H., permeability in *Chara ceratophylla*. II. Permeability to non-electrolytes, A., 545.
- Collatz, H., detection and determination of tribromoethyl alcohol, A., 1271.
- and Neuberg, I. S., recovery of sugars from their hydrazones, A., 54.
- See also Neuberg, C.
- Collazo, J. A., and Puyal, J., effect of adrenaline on blood-lactic acid, A., 642.
- Puyal, J., and Castellano, J., effect of adrenaline on lactic acid content of blood in normal man, A., 192. Effect of adrenaline on lactic acid content of blood and urine in rabbits, A., 192.
- Puyal, J., and Torres, I., lactic acid of blood during experimental glycaemia due to ingestion of glucose, A., 1074.
- and Ruiz, A. S., determination of lactic acid. I. Comparison of method of Fürth and Charnass with modification of Friedemann, Cotonio, and Shaffer. II. Determination in urine, milk, blood, and organs, A., 1066.
- Collens, W. S., and Boas, L. C., absorption of glucose by rectum, A., 1074.
- Collett, A. R. See Conn, R. C., Headlee, A. J. W., and Lynch, C. S.
- Collett, M. E., Rheinberger, M., and Little, E. G., specificity of intracellular dehydrogenases. V. Toxicity of arsenic, selenium, and tellurium compounds in frog and fish muscle, A., 533.
- Colley, L. St. J., pulverising and grinding machines, (P.), B., 816.
- Collie, C. H., separation of the isotopes of hydrogen, A., 1253.
- See also Gratiot, O. A.
- Collin, A. See Rupe, H.
- Collin, G., fatty acids from the larva-fat of the beetle *Pachymerus dactris*, L., A., 1183. Kernel-fats of the Palmæ: *Acrocomia sclerocarpa*, Mart. (gru-gru palm), *Manicaria saccifera*, Gaertn., *Astrocaryum tucuma*, Mart., *Maximiliana caribæa*, Griseb., *Attalea excelsa*, Mart. (pallia palm), and *Cocos nucifera*, Linn. (coconut), A., 1217. Fatty acid and glyceride structure of the seed fat of *Myristica malabarica*, B., 397.
- and Hilditch, T. P., isomeric  $\theta$ -dihydroxyoctadecyl alcohols produced by oxidation of *cis*- and *trans*- $\Delta^9$ -octadecenyl (oleyl and claidyl) alcohols, A., 486.
- Hilditch, T. P., Marsh, P., and McLeod, A. F., preparation of aliphatic mercaptans and sulphonic acids of high mol. wt., A., 1141.
- Collin, L. P., ceramic bodies for electrical heating devices, B., 705. Colour control of [building] brick, B., 706.
- Collin & Co., and Schafer, J., water-gas in coke ovens, (P.), B., 8.
- Collingh, W. E., and Koningsberger, V. J., starch formation in cane leaves, A., 435.
- Collins, A. M. See Carothers, W. H., and Du Pont de Nemours & Co., E. I.
- Collins, D. H., diabetic lipæmia; rôle of fats in diabetes mellitus; hæmolipocrit method for determination of fat in blood-serum, A., 1189.
- Collins, G. See Wood, R. W.
- Collins, G. E., Morgan, G. T., and Pratt, D. D., [wetting agent for] treating cellulosic fibres, (P.), B., 504.
- Collins, J. N. See Norton, B.
- Collins, W. D., recommended specifications for analytical reagent chemicals; benzoic, boric, formic, sulphanilic, and sulphurous acids, aniline, hydrogen peroxide, mercuric bromide, potassium biphthalate, potassium oxalate, sodium sulphite anhydrous, A., 920.
- and Williams, K. T., chlorido and sulphate in rain-water, A., 927.
- Collins & Aikman Corporation. See Drobile, A. W.
- Collip, J. B., interrelationship between pituitary gland, ovaries, and placenta, A., 322.
- Anderson, E. M., and Thomson, D. L., adrenotropic hormone of the anterior pituitary lobe, A., 1086.
- Selye, H., and Thomson, D. L., gonad stimulating hormones in hypophysectomised animals, A., 322.
- Collison, R. C. See Harlan, J. D.
- Colmant, ionisation produced in a spherical vessel by radon, A., 110. Radiochemical decomposition of hydrogen sulphide at room temperature, A., 132.
- Colonge, J., condensation of ketones by mixed ammo-magnesium derivatives, A., 698.
- See also Grignard, V.
- Colonna, M., and Musajo, S., catalytic synthesis of phenylpyridines, A., 74.
- Colony, R. J., studies of Portland cement in relation to desintegration of concrete; products of hydration and hydrolysis of Portland cement, B., 467.
- Colorado Iron Works Co., [multiple-hearth furnace for] roasting ores, etc., (P.), B., 233.
- Coloxide Patents Corporation. See Groggins, S. S.
- Colson, A. F., micro-analytical determination of methoxyl groups in liquid compounds, A., 1314.
- Col-Tex Refining Co. See Burruss, G. H.
- Coltof, W., [explosive decomposition of alkaline ammoniacal silver solutions]. A., 36. Gelation of sucrose with metal hydroxides, A., 124.
- See also Heertjes, P. M.
- Colton, F. T. See Fenning, R. W.
- Colton, J. H., and Pacific Portland Cement Co., Consol., Portland cement, (P.), B., 917.
- Columbia Engineering & Management Corporation. See Rosenthal, H.
- Columbia Malleable Castings Corporation and Zifferer, L. R., apparatus for melting metals, (P.), B., 711.
- Columbian Carbon Co. See Lewis, G. C., and Marshall, A. E.
- Colvin, J. See Bradley, R. S., and Cooper, M. M.
- Colvin, M. G., behaviour of bacteriophage in body-fluids and exudates, A., 868.
- Comblès, E., refractory cements for patching silica[brick-lined] coke ovens, B., 1009.
- Combs, W. B. See Macy, H.
- Combustion Utilities Corporation. See Bhagwat, M. R., Caplan, S., Granger, F. S., Johnson, A., and Schumann, T. E. W.
- Comel, A., red soils of Tripolitanian plateau, A., 693.
- Comesaña, F. See García-Blanco, J.
- Comings, E. W. See Sherwood, T. K.
- Commercial Solvents Corporation and Stiles, H. R., production of propionic acid by fermentation, (P.), B., 521, 889.
- See also Carlsmith, L. E., Christensen, L. M., Edmonds, W. J., Langwell, H., Legg, D. A., Martin, Jerome, Simms, C. W., Swallen, L. C., Vaupotie, F. A., Wheeler, M. C., Wilson, P. W., and Woodruff, J. C.
- Commin, F. J., septic tanks, (P.), B., 46.
- Common, R. H., mineral metabolism of pullets, A., 1326.
- Commons, C. H., jun. See Kinzie, C. J.
- Compagnie de Bethune, esters of cyclopentenylacetic acids, (P.), B., 812.
- Comp. pour la Fabrication des Compteurs et Matériel d'Usines à Gaz, volumetric meters, (P.), B., 556.
- Comp. des Forges de Châtillon, Commentry, & Neuves-Maisons, corrosion-resisting iron alloys, (P.), B., 924.
- Comp. Française Howden Buell Combustion, hammer pulverisers, (P.), B., 3.
- Comp. Générale des Industries Textiles. See Duhamel, E. C.
- Comp. Lorraine de Charbons pour l'Électricité, electric arc carbons, (P.), B., 752.
- Comp. de Produits Chimiques et Electro-métallurgiques Alais, Froges et Camargue, manufacture of aluminium in electrolysis cells of high power, (P.), B., 474. Preparation of oxide of beryllium, and beryllium fluoride from a double fluoride of beryllium and an alkali metal, (P.), B., 588. Crystalliser, (P.), B., 817.



- Comp. Réunies des Glaces et Verres Spéciaux du Nord de la France, apparatus for hardening glass, (P.), B., 347.
- Compennolle, M. L., phosphorus content of *Crustacea* of the Belgian coast, A., 625.
- Compressed Gas Manufacturers' Association Sulphur Dioxide Committee, analysis of refrigeration-grade liquid sulphur dioxide, B., 384.
- Compton, A. H., significance of recent measurements of cosmic rays, A., 660.
- Compton, K. T., accommodation coefficient of gaseous ions at cathodes, A., 109.
- and Lamar, E. S., test of classical "momentum transfer" theory of accommodation coefficients of ions at cathodes, A., 1098.
- Comstock, G. F., experiments with zircon and zirconia refractories, B., 228.
- Comstock, L. See Holmes, A. D.
- Conant, J. B., and Armstrong, K. F., chlorophyll series. X. Esters of chlorin-*c*, A., 403.
- and Bailey, C. F., chlorophyll series. IX. Transformations establishing the nature of the nucleus, A., 403.
- and Chow, B. F., addition of free radicals to diones, pyrrole, and maleic anhydride, A., 1041. Measurement of oxidation-reduction potentials in glacial acetic acid solutions, A., 1121. Potential of free radicals of the triphenylmethyl type in glacial acetic acid solutions, A., 1122.
- Chow, B. F., and Schoenbach, E. B., oxidation of haemocyanin, A., 965.
- and Dietz, E. M., structural formulae of the chlorophylls, A., 287. Chlorophyll series. XI. Position of the [carbo]methoxyl group, A., 403.
- and Schultz, R. F., dissociation into free radicals of tetraphenyliditert.-butylethane, A., 703.
- and Wheland, G. W., structure of the acids obtained by oxidation of triisobutylene, A., 804.
- Conant, N. F., automatic water-level regulator for autoclaves, A., 140.
- Conard, (Miss) V. A., and Shriner, R. L., aminoguanidine derivatives, A., 951.
- Condit Electrical Manufacturing Corporation. See Greenwood, T. T.
- Condon, E. U., Stark effect, A., 547.
- See also Bacher, R. F.
- Condorelli, P., and Coco, B. A., extracting juice from liquorice, (P.), B., 92.
- Cone, C. N. See Eilertsen, L. W.
- Cone, W. E., tar concrete, B., 659.
- Cone, W. H. See Taylor, T. I.
- Conklin, E. B., and Semet-Solvay Co., treatment of sludge acid [from purification of coke-oven light oil, etc.], (P.), B., 294.
- See also Forrest, L. R.
- Conklin, R. B. See Bogert, M. T.
- Conley, J. E., and Fraas, F., extraction of potash [potassium sulphate] from polyhalite. III. Effect of particle size, sodium chloride concentration, and temperature on hot extraction by a multistage process, B., 962.
- Conlin, F., brush for electroplating and electrocleaning, and anode for use therein, (P.), B., 555.
- Conlon, J. F. See Rogers, R. R.
- Conn, H. J., changes in microflora of soil, B., 162, 643.
- and Margolena, L. A., difficulties encountered in obtaining a satisfactory Wright stain [for blood], A., 293.
- Conn, H. J. See also Peterson, A. R.
- Conn, L. W., and Johnson, A. H., vitamin-C content of frozen orange and grapefruit juices, B., 282.
- Conn, M. W. See Bost, R. W.
- Conn, R. C., Collett, A. R., and Lazzell, C. L., aromatic esters of monoalkyl ethers of ethylene and diethylene glycols, A., 48.
- Conn, W. T., and United States, extraction of oil and moisture from "fish press-cake," (P.), B., 1066.
- Connell, A. J. See Good, A. J.
- Connell, (Miss) L. C. See Butler, J. A. V., and Vosburgh, W. C.
- Conner, S. D., factors affecting manganese availability in soils, B., 83.
- Connerade, E., side-chain chlorination of *pp'*-dimethylbenzophenone. I. 4:4'-Dichlorodimethylbenzophenone, A., 1051.
- Connolly, G. C., and Silica Gel Corp., preparation of adsorbent materials, (P.), B., 547.
- See also Miller, E. B.
- Connor, R., and Adkins, H., hydrogenolysis of oxygenated organic compounds, A., 143.
- Conover Co. See Stoddard, E. S.
- Conrad, F. H. See Kobe, K. A.
- Conrad, R., decomposition of hexane, cyclohexane, and benzene in the positive ray tube, A., 1270.
- Conrad-Billroth, H., optical absorption of substituted benzenes. II. Xylidines and xylenols. III. Calculation of displacement of bands by substituents, A., 445. [Regularity in structure of the absorption spectra of aromatic hydrocarbons. IX.], A., 601.
- See also Hua-Chih, C.
- Conrey, G. W., and Barnes, E. E., size distribution of soil particles in several Ohio soil profiles, B., 242.
- Consolati, F. See Müller, K. O.
- Consolidated Gas Co., dehydration of gases, (P.), B., 97.
- Consolidated Mining & Smelting Co. of Canada, Ltd. See Stimmel, B. A.
- Consolidated Patentes Corporation. See Epstein, A. A.
- Consortium für Elektrochemische Industrie G.m.b.H., non-splintering glass, (P.), B., 106. Shaped articles from polyvinyl alcohols, (P.), B., 238, 677.
- See also Herrmann, W. O.
- Constant, F. W., capillary action as a function of temperature and pressure, A., 774.
- See also Allen, R. I.
- Constructora de Caminos "Kingite," Crocker, King & Co. See under King, R. H.
- Contact Filtration Co. See Fuller, I. K.
- Contardi, A., and Ciocca, B., action of copper on aromatic mercuriaceto-compounds, A., 1062.
- and Ercoli, A., enzymic scission of lysochitin and lecithin; isomeride of the lecithins, A., 374. Enzymic hydrolysis of lecithins and lysocithins, A., 863.
- Continental Can Co., Inc., and McKinnis, R. B., treatment of coffee beans, (P.), B., 938.
- Continental-Diamond Fibre Co. See Frederick, L. T., Hollingworth, D. W., McIntosh, J., Richards, B. H. F., Taylor, J. M., and Vacher, F.
- Continental Oil Co. See Davis, L. L., Henriksen, A., Miller, W., Porter, F., and Zurcher, P.
- Continental Steel Corporation. See Schueler, J. L.
- Conway, E. J., absorption apparatus for micro-determination of volatile substances. II. Determination of urea and ammonia in body fluids, A., 654. Apparatus for examination and analysis of [small quantities of] substances having volatile constituents, (P.), B., 336.
- and Byrne, A., absorption apparatus for micro-determination of volatile substances. I. Micro-determination of ammonia, A., 654.
- Cook, C. F. See Brill, H. C.
- Cook, D. H., laboratory cooling unit, A., 479.
- Cook, H. A., care and use of  $pH$  equipment, B., 433.
- Cook, J. A., apparatus for mechanical separation of materials, (P.), B., 945.
- Cook, J. W., and Dodds, E. C., sex hormones and cancer-producing compounds, A., 323.
- Dodds, E. C., and Hewett, C. L., synthetic oestrus-exciting compounds, A., 323.
- and Haslewood, G. A. D., conversion of a bile acid into a hydrocarbon derived from 1:2-benzanthracene, A., 1162.
- and Hewett, C. L., dehydrogenation of cholesterol, A., 710. Synthesis of compounds related to the sterols, bile acids, and oestrus-producing hormones. I. 1:2-cycloPentenophenanthrene, A., 1042. Polycyclic aromatic hydrocarbons. XI. Acetylation of 1:2-benzanthracene, A., 1299.
- Hewett, C. L., and Hieger, I., coal-tar constituents and cancer, A., 85.
- Hewett, C. L., Hieger, I., and Goulden, F., isolation of a cancer-producing hydrocarbon from coal tar. I.—III., A., 601.
- and Lawson, W., Reformatsky reaction with anisil, A., 953.
- See also Barnett, E. de B.
- Cook, K. H. See Cook, W. A.
- Cook, L. W., and Texas Co., preparation of chlorohydrins, (P.), B., 998.
- Cook, M., and Larke, E. C., application of the diamond-pyramid indentation test to copper and copper-rich alloys in the form of thin strip, B., 350.
- See also Brownson, H. W., and Imperial Chem. Industries.
- Cook, R. C., and Universal Oil Products Co., cracking of hydrocarbon oils, (P.), B., 378.
- Cook, R. P. See Clift, F. P.
- Cook, S. G. See O'Callaghan, J. A.
- Cook, W. A., and Cook, K. H., halogenation of *m*-diphenylbenzene. I. Mono-chloro- and -bromo-derivatives, A., 495. Determination of nuclear halogens in organic compounds; critical study and standardisation of the Stepanov method, A., 731.
- See also Ficklen, J. B.
- Cook, W. B., sterilisation of solutions of glucose and sucrose, A., 316.
- Cook, W. C., spraying for control of beet-leaf hopper in central California, 1931, B., 1029.
- Cook, W. H., fire hazards in the use of oxidising agents as herbicides, B., 760.
- Cooke, F., direct recovery of standard road tars and other tar constituents from vertical-retort, coke-oven, and other producing plants, B., 496.
- and Holton, A. L., producer and similar gas, (P.), B., 294.

- Cooke, R. A. See Stull, A.
- Cooke, T. S., Brewster, O. C., and Standard Oil Co., distillation of hydrocarbon oils, (P.), B., 456.
- See also Diggs, S. H.
- Cool, R. D., and Yoe, J. H., volumetric determination of nitrites, A., 477.
- Cooley, A. M., jun., and Lavine, I., characteristics of lignite dehydrated by steam, B., 131. Development of Dakota lignite. VIII. Oil-steam atmosphere for dehydrating Dakota lignite, B., 290.
- Cooley, M. See Poe, C. F.
- Coolidge, A. S., quantum mechanics treatment of the water molecule, A., 11.
- Coolidge, C. See Du Pont de Nemours & Co., E. I.
- Coolidge, T. B., cytochrome and yeast-iron, A., 95.
- Coolidge, W. D. See Brit. Thomson-Houston Co.
- Coombs, F. A., wattle barks and tannin extraction, B., 358.
- Coombs, H., quick-drying Canada balsam, B., 928.
- Coombs, H. I., and Thompson, K. W., influence of plasma-protein on chloride content of cerebrospinal fluid, A., 84.
- Coombs, J. A. See Activated Sludge, Ltd.
- Coon, E. D., and Daniels, F., isothermal calorimeter for slow reactions, A., 247.
- Coons, C. M., and Schiefelbusch, A. T., diets of college women in relation to their basal metabolism, A., 182.
- Coons, R. R., preparation of per-acids and their salts, A., 134.
- Cooper, B. S. See Ryde, J. W.
- Cooper, C., Henshaw, D. M., and Holmes & Co., Ltd., W. C., treatment of gases arising in distillation or carbonisation of coal and similar carboniferous material, (P.), B., 181. Rotary pumps of the centrifugal type and apparatus for bringing gases and vapours into intimate contact with liquids, (P.), B., 416.
- See also Holmes & Co., Ltd., W. C.
- Cooper, E. D., and Davies, J., production of pictures in colours, (P.), B., 1085.
- Cooper, H. P., relation of standard electrode potentials and ionisation potentials of atoms to cation exchange in soils and absorption and utilisation of nutrients by plants, B., 84.
- Mitchell, J. H., and Kyzer, E. D., relation of ash constituents of carpet grass from fertiliser plots to the oxidation-reduction potentials of the metallic nutrient elements, B., 884.
- Cooper, H. S., Merlub-Sobel, M., and Kemet Labs., Inc., coating of substances [thermionic cathodes], (P.), B., 675.
- Cooper, J. F., citrus fruit juice, B., 169.
- Cooper, K. E. See Browning, C. H.
- Cooper, K. F., and Amer. Cyanamid Co., [cyanide] fumigation composition and process, (P.), B., 990.
- Cooper, L. H. N., chemical constituents of biological importance in the English Channel. I. November 1930 to January 1932; phosphate, silicate, nitrate, nitrite, ammonia. II. pH excess base, carbon dioxide, and oxygen. III. June-December, 1932; phosphate, silicate, nitrite, hydrogen-ion concentration, with a comparison of wind records, A., 251, 1028.
- Cooper, L. V., machine for laboratory evaluation of fatigue of rubber compounds flexed under compression, B., 1069.
- Cooper, M. A. See Quick, A. J.
- Cooper, M. M., Colvin, J., and Hume, J., dehydration of copper sulphate trihydrate, A., 465.
- Cooper, S. S. See Bull, T. R.
- Cooper, McDougall & Robertson, Ltd., and Freak, G. A., antifouling compositions, (P.), B., 677.
- Coops, J., jun. See Verkade, P. B.
- Coordt, W., linseed oil sizes. II. Effect of linseed oil sizes on extensibility and strength of viscose rayon, B., 584.
- See also Weltzien, W.
- Cooymans, G., wet treatment of slurry in rotary kilns for cement and similar manufactures, (P.), B., 829.
- Cope, A. C., and McElvain, S. M., cleavage of disubstituted malonic esters by sodium ethoxide, A., 51. Synthesis of ethylvinylmalonic ester and incidental compounds, A., 51.
- Cope, C. L., urea secretion. VIII. Effects on urea clearance of changes in protein and salt contents of the diet, A., 1071.
- See also Van Slyke, D. D.
- Cope, G. F. See Hopkins, R. H.
- Cope, (Miss) I. S. See Menzies, R. C.
- Copeland, O. C., and Fraps, G. S., sorghum silage as a source of vitamin-A for dairy cows, B., 523.
- Copeland, P. L., variation of secondary emission with heat treatment, A., 549. Secondary emission of electrons from molybdenum, A., 657. Secondary emission of electrons from metals, A., 761.
- Copisarow, M., twisted trees—real and mineral, A., 105. Radiation and enzyme activity, A., 186. Colloid substrate in photosynthesis, A., 915. Is methylene-blue anti-carcinogenic? A., 1070.
- Coppens, L., low-temperature separation of mixtures of ethane and methane, B., 212.
- Coppens, P. A., sterilisation of iodoform, B., 1034.
- and Metz, G. A., distribution of irradiated ergosterol in the animal body after oral administration, A., 1340. Destruction of activity of vitamin-D by lung tissue, A., 1340.
- Copper Deoxidation Corporation. See Stout, H. H.
- Coppo, M., relation between hormones and vitamins, with special reference to the thymus and irradiated ergosterol, A., 434.
- Coppola, M., calcareous rock of apex of black stones in the Gargano region, A., 46.
- Copson, H. R. See Harned, H. S.
- Copson, R. L., and Payne, J. W., recovery of sulphur dioxide as dilute sulphuric acid, B., 784.
- Corbellini, A., and Angeletti, M., stereo-isomerism of 2:2-disubstituted derivatives of diphenyl. II, A., 64.
- and Barbaro, L., use of acenaphthene in production of dyes of the anthanthrone series. II. New synthesis of naphthastyryl, A., 1054.
- and Cecchi, A., benzo- and naphthopyrazolyl-o-benzoic acids, A., 1172.
- and Langini, A., synthesis of pentaerythritol, A., 486.
- Corbet, R. E., Geisinger, H. H., and Holmes, H. N., substances interfering with the antimony trichloride test for vitamin-A, A., 755.
- Corbett, C. M., and Moncrief, R., fractionating tower, (P.), B., 4.
- Corbett, S. M., and Stanford, L. H., photographic dust-count apparatus, (P.), B., 1038.
- Corbin, M. H., application of finishing materials on zinc, B., 237.
- Corcoran, D. R. See Burt, C. P.
- Cordes, H., and Schenk, P. W., sulphur monoxide, A., 1021. Sulphur monoxide. II. Preparation and properties of pure sulphur monoxide, A., 1130.
- and Sponer, H., molecular absorption of mixed halogen molecules in the vacuum ultra-violet, A., 5.
- Cordonnier. See Paget, M.
- Cordonnier, G., sensitivity of [photographic] emulsions; method of expression suitable for direct application to exposure tables, B., 1085.
- Cordonnier, R. See Schärer, M.
- Corey, R. B., and Wyckoff, R. W. G., crystal structure of tetragonal hydrated nickel sulphate, A., 451. Structure of methylcarbamide, A., 451. Crystal structure of zinc hydroxide, A., 1003.
- Corey, R. C. See Finnegan, T. J.
- Cori, C. F., and Cori, G. T., total carbohydrate and glycogen content of mammalian muscle, A., 523. Plasma-phosphate and -lactic acid in normal and adrenalectomised animals during changes in carbohydrate metabolism, A., 1209.
- See also Cori, G. T.
- Cori, G. T., and Cori, C. F., changes in hexosephosphate, glycogen, and lactic acid during contraction and recovery of mammalian muscle, A., 307.
- See also Cori, C. F.
- Cork, J. M., Laue patterns from thick crystals at rest and oscillating piezoelectrically, A., 213.
- See also Witmer, R. B.
- Cori, C. S. See Gnadinger, C. B.
- Cornbrook Chemical Co., Ltd., and Barker, Jack, colour lakes, (P.), B., 719.
- Cornea, J. See Velculescu, A. J.
- Cornelius, H. See Eilender, W., and Esser, H.
- Cornell, A. W., and Forbes Lithograph Manufg. Co., modifying photographic images, (P.), B., 814.
- Cornell, F. M., and Stimulant Labs., Inc., bacterial product [for treating seeds], (P.), B., 983.
- Corner, M. See Ridge, B. P.
- Corning Glass Works, cast refractory articles, (P.), B., 589.
- and Dalton, R. H., fining of glass, (P.), B., 787.
- See also Daniewski, W. M., Fulcher, G. S., Locke, F. M., and Rising, W. H.
- Cornish, R. E. See Henriques, H. J., and Lewis, G. N.
- Cornubert, R., and De Demo, M., Skita's *trans*-2:6-dimethylcyclohexanone is the *cis*-isomeride, A., 1296.
- and Robinet, P., preparation of tetrahydropyrone, A., 1166. [Confirmation of the constitution of] so-called tetrahydropyrones, A., 1166.
- See also Ramart-Lucas, (Mme.) P.
- Coronet Phosphate Co. See Gooch, S. D., and Waggaman, W. H.
- Corran, J. W., and Edgar, S. H., preservative action of spices and related compounds against yeast fermentation, B., 604.
- Correns, C. W., and Nagelschmidt, G., fibre structure and optical properties of chalcedony, A., 692.

- Corrigan, K. E. See Clark, G. L.
- Corso, A. L., and Durruty, G. A., equilibrium constant of reaction between ethyl alcohol and acetic acid, A., 125.
- Corson, G. E., Bryant, A. P., and Clinton, Corn Syrup Refining Co., crystalline dextrose, (P.), B., 888.
- See also Pattillo, D. K.
- Corson, M. G., and Duriron Co., [heat-] treating [and working] iron-silicon alloys, (P.), B., 110.
- and Electro Metallurg. Co., [copper] alloy, (P.), B., 924.
- and Nat. Lead Co., refining lead, (P.), B., 713.
- Corte, H. See Bergmann, E.
- Corwin, H. L., rotary drying apparatus, (P.), B., 575.
- Cory, E. N. See Ditman, L. P.
- Coryell, C. See Komarek, G.
- Coryell, C. D., and Yost, D. M., reduction potential of vanadic acid to vanadyl ion in hydrochloric acid solutions, A., 675.
- Cos, J. J., apparatus for washing and otherwise treating gases with liquids, (P.), B., 817.
- Cosens, C. R., electroplating copper on manganin, B., 922.
- Cosgrove, W. H. See Brooke, F. W.
- Cosmulesco, I. See Litarczek, G., and Rathery, F.
- Cossu, B. See Battistini, S., and Moracchini, R.
- Costa, D., detection of soya flour as an adulterant of food products, B., 362.
- Costăchescu, N., and Ablov, A., influence of substituents in bases and anions on the co-ordination index of a metal. I., A., 578.
- Coste, J. H., interaction between soot films and oil, A., 672.
- Costeanu, G. I., e.m.f. in liquid ammonia, A., 29.
- Costenoble, H., interpretation of [sugar cane] fertiliser tests with potash, B., 360.
- Coster, D., Brons, H. H., and Bulthuis, H., band spectrum of CO<sup>+</sup>, A., 207.
- Brons, F., and Ziel, A. van der, second positive group of the nitrogen spectrum, A., 991.
- and Knol, K. S., atomic scattering factor for X-rays in the region of anomalous dispersion, A., 201.
- and Thijssen, W. J., excitation of X-ray lines of the second kind, A., 993.
- and Ziel, A. van der, photochemical reaction of monoalkylmalonic acids, A., 577.
- Coster, H. M., application of conductivity measurement of nitric acid concentration to plant control, B., 962.
- Costopanagiotis, B. C. See Kohn, R.
- Cotthran, J. C. See Frost, W. S.
- Cottier, W., toxicity of arsenates, B., 727.
- Cottin, H., pentenylamine, A., 1038.
- Cotton, A., magnetic circular dichroism and rotatory dispersion, A., 10.
- Use of coloured indicators for detecting heterogeneity in alloys, B., 872.
- and Scherer, M., magnetic rotatory dispersion of a coloured diamagnetic substance: thiobenzophenone, A., 213.
- Cotton, A. T., furnaces, (P.), B., 2.
- Cotton, F. H. See Drakeley, T. J., and Lefcaditis, G.
- Cotton, R. T., relation of respiratory metabolism of insects to their susceptibility to fumigants, A., 186.
- Cottrall, L. G., hydration of cellulose, B., 381.
- Co Tui, F. W., and Benaglia, A., checking various concentrations of solutions of novocaine hydrochloride, A., 1314.
- Cotzhausen, D. von. See Handovsky, H.
- Coubrough, G. B., and Lummus Co., purification of oil vapours, (P.), B., 536.
- Division of petroleum bottoms, (P.), B., 953.
- See also Lummus Co.
- Couceiro, P. See Bnm, E.
- Couch, D. H., air or gas washer, (P.), B., 657.
- Coufalík, F., determination of nitrogen in coal and coke, B., 98.
- Determination of crushing strength of coke, B., 577.
- Analysis of coking coals, B., 946.
- Couls, G. R., cutting-tool alloy, (P.), B., 793.
- Coulson, B. P., jun. See Gen. Electric Co.
- Coulson, E. J., and Remington, R. E., oysters and anaemia, A., 297.
- Coulter, S. T. See Macy, H.
- Coulter, T., and Lance, A. E., liquid oxygen explosives, B., 334.
- Coulthard, C. E., sterilisation of pharmaceutical preparations. I.—VI., B., 524.
- Levene, H. H. L., and Pyman, F. L., chemotherapy of derivatives of harmine and harmaline. I., A., 859.
- Coupon, H., assimilation of sugars by pollen tubes, A., 874.
- Cournot, J., corrosion tests for unoxidisable steels, B., 22.
- Influence of state of surface on corrosion of non-oxidisable steels, B., 22.
- Corrosion of "rustless" steel; effect of surface condition, B., 509.
- Determination of loss in weight in corrosion tests on ferrous metals, B., 871.
- Protal process for protection of light alloys, B., 1062.
- and Challansonnet, J., action of molybdenum on mechanical properties of grey cast irons, B., 149.
- Effect of molybdenum on cast iron, B., 869.
- and Chausain, M., determination of loss of weight in corrosion tests, B., 22.
- and Halm, L., measurement of polish in order to determine its bearing on corrosion of non-oxidisable steels, B., 550.
- Le Thomas, A., and Halm, L., oxygen in cast iron, B., 1058.
- See also Guillet, L.
- Courtaulds, Ltd., and Brown, J., acetic anhydride, (P.), B., 139.
- and Diamond, C., treatment [delustring] of threads, filaments, etc., of cellulose esters, (P.), B., 384.
- Glover, W. H., and Shedden, F., [non-slip] finishing of artificial silk fabrics, (P.), B., 345.
- and Hegan, H. J., removal of sodium sulphate from solutions containing sodium sulphate and sulphuric acid, (P.), B., 188.
- and Shedden, F., waterproofing of sheets of cellulosio material, (P.), B., 544.
- Courth, H. See Miethke, M.
- Courthope, T. F., McGuire, W. H., and Retsof Mining Co., solution of salts, (P.), B., 865.
- Courtin, A. See Ruggli, P.
- Cousin, A., rapid wear of shafts of blast furnaces; new method of cooling, B., 348.
- Cousins, W. R. See Imperial Chem. Industries.
- Coustal, R., preparation of phosphorescent zinc sulphide, A., 579.
- and Spindler, H., electrolysis of dry liquid ammonia, A., 235.
- See also Spindler, H.
- Coutant, J. G., purification of furnace or other gases, (P.), B., 371.
- Couture, M., gasometric determination of chromium, A., 138.
- Covell, B. S., and McKay Co., prevention of corrosion [of motor-car radiators], (P.), B., 632.
- Covello, M., substituted aminoquinones, A., 1164.
- Covert, L. W. See Adkins, H.
- Cowan, E. W. See Jenny, H.
- Cowan, R. J., and Surface Combustion Corp., case-hardening of metals [with ammonia], (P.), B., 834.
- Cowan, S. L., action of quaternary ammonium salts on nerve, A., 633.
- Coward, H. F., and Georgeson, E. H. M., mechanism of flame movement. III. Speed of flame in currents of mixtures of methane and air, A., 678.
- and Hartwell, F. J., mechanism of flame movement. II. Fundamental speed of flame in mixtures of methane and air, A., 30.
- Coward, K. H., length of test period and accuracy obtainable in a vitamin-A test, A., 644.
- Burn, J. H., Ling, H. W., and Morgan, B. G. E., determination of vitamin-B<sub>1</sub>, A., 1339.
- and Key, K. M., accuracy obtainable by line test in vitamin-D determinations, A., 645.
- Key, K. M., and Morgan, B. G. E., need for a standard of reference in vitamin-A testing, A., 870.
- Cowdery, A. B., and Barrett Co., rubber composition, (P.), B., 32.
- Cowell, S. J., calcium content of cabbage, A., 105.
- Cowgill, G. R. See Block, R. J., and Gilman, A.
- Cowie, D. W., and Gibson, D. T., mobility of groups containing a sulphur atom. II., A., 488.
- Cowles, A. H. See Electric Smelting & Aluminum Co.
- Cowley, E. G., and Partington, J. R., dielectric polarisation. VIII.—XI., A., 1230.
- Cowley, M. A., and Schuette, H. A., lactic acid. IV. Vapour pressures of its n-alkyl esters (C<sub>7</sub>—C<sub>10</sub>). V. 2:4-Dinitrophenylhydrazones of its alkyl esters, A., 253, 1034.
- Cowperthwaite, I. A., extent of dissociation of zinc sulphate, A., 569.
- See also La Mer, V. K.
- Cox, A. B., and Wark, I. W., physical chemistry of [ore] flotation. II. Adsorption of the soluble collector, B., 792.
- See also Wark, I. W.
- Cox, E. G., crystal structure of β-arabinose, A., 216.
- and Goodwin, T. H., quantitative analysis of calcite-aragonite mixtures by X-rays, A., 364.
- Crystal structure of sugar derivatives, A., 892.
- and Hirst, E. L., constitution of vitamin-C, A., 490.
- Hirst, E. L., and Reynolds, R. J. W., hexuronic acid as the antiscorbutic factor, A., 100.

- Cox, E. G., Pinkard, F. W., Wardlaw, W., and Preston, G. H., green salt of Magnus and related compounds, A., 41.  
and Preston, G. H., molecular structure of co-ordination compounds of platinum and palladium, A., 1040.
- Cox, G. A. See Whitehead, H. R.
- Cox, G. C. See McIntyre, H. K.
- Cox, G. J., and Dodds, (Miss) M. L., alkyl esters of lævulic acid, A., 1034.  
Industrial uses for cane sugar. II. Properties of alkyl esters of lævulic acid, B., 1029.
- Ferguson, J. H., and Dodds, (Miss) M. L., industrial uses for cane sugars. III. Technology of sucrose octaacetate and homologous esters, B., 1029.
- See also Hamor, W. A.
- Cox, H. L., Greer, P. S., and Carbide & Carbon Chemicals Corp., preservation of ethyl ether, (P.), B., 998.  
See also Carbide & Carbon Chemicals Corp.
- Cox, I. J. See Du Pont de Nemours & Co., E. I.
- Cox, J. L., and Foley, F. B., [acid-resistant] metal alloy, (P.), B., 874.
- Cox, R. F. B. See Horne, W. H.
- Cox, T. K. See Western Electric Co.
- Cox, W. M., and Wolfenden, J. H., viscosity of nitrobenzene, A., 344.
- Coxon, T. See Imperial Chem. Industries.
- Coyne, F. P., effect of carbon dioxide on bacterial growth, A., 984. Effect of carbon dioxide on bacterial growth with special reference to preservation. II. Gas storage of fresh fish, B., 170.
- Cozio, M., oxidations and reductions determined by *Acetobacter xylinum*, A., 867.
- Cozzolino, D., and Cozzolino, G., stabilisation of cereal beverages, (P.), B., 890.
- Cozzolino, G. See Cozzolino, D.
- Crabtree, H. G., and Cramer, W., action of radium on cancer cells. I. Effects of hydrocyanic acid, iodoacetic acid, and sodium fluoride on metabolism and transplantability of cancer cells. II. Factors determining susceptibility of cancer cells to radium, A., 970.
- Crafts, W. See Egan, J. J.
- Craggs, H. C. See Allmand, A. J.
- Craig, C. See Frey, C. N.
- Craig, C. F. See Moreton, H. H.
- Craig, D., reaction of formaldehyde with diphenylamine, A., 1155.
- Craig, D. N. See Vinal, G. W.
- Craig, E. C., and Bean, E. L., ferric coagulation of soft water, B., 686.
- Bean, E. L., and Sawyer, R. W., iron and lime in removal of manganese [from water], B., 125.
- Craig, G. L., and Klopsch, O. Z., fabrication and properties of seamless phosphorised arsenical copper tubing, B., 431.
- and LaQue, F. L., chromium-nickel-iron castings from sulphite [pulp] service, B., 541.
- Craig, J. W. See Carrie, G. M.
- Craig, K. A. See Knapper, J. S.
- Craig, L. C., synthesis of 2-substituted 1-methylpyrrolines, A., 282. Synthesis and physiological action of  $\alpha$ -substituted *N*-methylpyrrolidines, A., 834. Synthesis of normecotine and nicotine, A., 960.
- Craig, N., phosphate content of [sugar] cane juices in Mauritius, B., 1075.
- Clarg, R. F. See Hornbuckle, W. P.
- Craise, F. L., Vesper, H. G., Griffith, H. G., and Standard Oil Co. of California, treatment of oils, (P.), B., 853.  
See also Osmer, J. H.
- Cram, W., and Winans, J. G., fluorescence spectra of cadmium vapour, A., 1219.
- Cramer, P. L. See Signaigo, F. K.
- Cramer, W. See Crabtree, H. G.
- Crampton, D. K., Burghoff, H. L., and Chase Companies, Inc., welding rod, etc., (P.), B., 793.
- Crandall, F. K. See Odland, T. B.
- Crandall, L. A., jun., fate of glyceryl trinitrate in the tolerant and non-tolerant animal, A., 860.
- Crane, F. G., making and treating paper, (P.), B., 826.
- Crane, H. R., Lauritsen, C. C., and Soltan, A., artificial production of neutrons, A., 1225.
- Crane, K. D. See Jones, H. D.
- Crane, M. B., and Zilva, S. S., antiscorbutic potency of apples. V., A., 325.
- Crane Packing Co. See Teeple, C. P.
- Cranston, J. A., and Benson, C., theoretical decay curves for various rates of radium-B to radium-C, and of thorium-B to thorium-C, A., 551. Factors affecting ratio of adsorption of radium-B and -C on metal, A., 671.
- Crater, W. de C., and Hercules Powder Co., [explosive] compositions of matter, (P.), B., 94. Blasting cap, (P.), B., 814.
- Craven, E. C., use of Agulhon's reagent in analysis of solvents, B., 696.
- Craver, A. E., and Barrett Co., aromatic aldehydes, (P.), B., 999.  
and Weiss & Downs, Inc., preparation of [a urinary acidifier by] chemical combination of boric acid and potassium acid tartrate, (P.), B., 446.
- Crawford, A. L., evaluating gold in certain places by microscopy, B., 971.
- Crawford, J. W. C. See Imperial Chem. Industries.
- Crawford, M. E. F., and Perry, E. O. V., vitamin content of mango fruit, A., 1090.
- Crawford, M. F., and Crooker, A. M., nuclear moment of arsenic, A., 547.
- Crawford, S. L., and Ward, J. M., effect of vinegar on circulating blood-cells, A., 860.
- Crawford McGregor & Canby Co. See Hampton, W. C.
- Crawshaw, B. P., degreasing plant, (P.), B., 76.
- Craxford, S. R., electrocapillary maximum for a mercury electrode, A., 785. Electrophoretic null point for mercury in aqueous solutions, A., 909.
- Gatty, O., and Philpot, J. St. L., theory of electrocapillarity. I. Capillarity, A., 1248.
- Creamer, A. S. See Geller, R. F.
- Creelman, A. G. See Young, A. C.
- Creighton, M., and Taylor, N. M., starch-digesting and sugar-forming enzymes of wheat, A., 1330.
- Creitz, W. H., [preparing plates of] electric accumulators [for storage, etc.], (P.), B., 73.
- Cremer, C. See Stockhausen, H.
- Cremer, E., and Póányi, M., test of "tunnel" theory of heterogeneous catalysis on hydrogenation of styrene, A., 235. Transformation of ortho- into para-hydrogen in the solid state, A., 786.
- Cremer, H. W., and Duncan, D. R., polyhalides. IV. Reactions in absence of a solvent, A., 361.
- Cremer, W. See Fischer, Franz.
- Crescent China Co. See McMaster, H. J.
- Crespinel, W. T. See Fairall, H. K.
- Cressman, A. W., biology and control of *Chrysomphalus dictyospermi* (Morg.), B., 1074.
- Cressman, H. W. J. See Allen, C. F. H.
- Cretcher, L. H. See Butler, C. L., and Renfrew, A. G.
- Creuzburg, U. See Gehring, A.
- Creuze, P., and Soc. d'Études Scientif. & Industr., radio valves employing gallium, (P.), B., 397.
- Crewson, G. G., and Swenson Evaporator Co., evaporator, (P.), B., 449.
- Crichton, J. A., and Allcroft, W. M., feeding tests with bran and linseed cake, A., 89.
- Crider, F. J., selective absorption of ions not confined to young rootlets, A., 1093.
- Criegee, R., size of ring II in cholesterol, A., 62.
- Kraft, L., and Rank, B., glycol fission, its mechanism and application, A., 1272.
- Criep, L. H., urticaria. I. Acid-base balance. II. Blood chemistry, A., 181.
- Crigler, (Miss) E. A., Raman spectra. I. Diphenylmethane, aliphatic bromides, and mercaptans. II. Relative intensities of characteristic lines in Raman spectra of benzene-toluene mixtures, A., 7.
- Crile, G., Glasser, O., Telkes, M., and Rowland, A., autotrophic cells; possible rôle of the nitro-group in energy phenomena of protoplasm, A., 527.
- Crimm, P. D., vitamin therapy in pulmonary tuberculosis. II. Activated ergosterol hypercalcaemia, A., 416.
- Crippa, G. B. [with Cessi, T., and Perroncito, G.], *o*-aminoazo-derivatives; quinoxalines and *N*-aryldioiminazoles, A., 837.  
and Galimberti, P., resistance of the linking between the arylazo-group and the nucleus in aminoazo-derivatives, A., 59. Phthaloylation, A., 822.  
and Long, M. [with Perroncito, G.], hydroxyarylarazo-derivatives of the pyrazole group, A., 166.
- Criqui, A. A., Thornton, R. T., and Buffalo Forge Co., gas purifier or scrubber, (P.), B., 371.
- Crisci, P., and Michielini, L., behaviour of acid concentration of wines and grape must in regard to technical operations. I. Clarification and decolorisation, B., 167.
- Crist, R. H. See Smid, L.
- Critchfield, C. L. See Evans, W. D.
- Crites, J. See Internat. Combustion, Ltd.
- Crockatt, A. J., garment dyeing—an aspect of union dyeing, B., 426.
- Crockatt, W. C. See Crockatt & Sons, Ltd., W.
- Crockatt & Sons, Ltd., W., and Crockatt, W. C., apparatus for measuring the properties of liquids electrical conductivity of which varies with said properties, (P.), B., 397.
- Crocker, A. O. See King, R. H.
- Crocker, B., collecting and classifying different kinds of solids suspended in a liquid, (P.), B., 449.
- Crocker, B. E., petroleum[electric] smelting process, (P.), B., 633.

- Crocker, E. C., Mäulo lignin test on *Podocarpus* wood, B., 1002.  
and Little, Inc., A. D., flame-proofing of combustible [fibrous] materials, (P.), B., 864.
- Crocker, W. See Zimmerman, P. W.
- Crockett, J. B., preparation of vulcanisable [rubber] latex, (P.), B., 1022.
- Crockett, W. G., Frayser, W. M., and Thompson, G. V., behaviour of ethyl nitrite in copaiba emulsions, B., 171.
- Crockford, H. D., and Simmons, N. L., jun., binary systems of *m*-nitrotoluene and *p*-nitrotoluene with naphthalene, *p*-toluidine, and *o*-toluidine, A., 345.  
and Thomas, H. C., Debye-Hückel ion size parameter in terms of individual ionic radii; activity coefficient of lead chloride in solutions of cadmium nitrate, A., 351.
- Croizé, D. See Maignon, F.
- Crommelin, C. A. See Mathias, E.
- Cromwell, B. T., origin and function of berberine in *Berberis Darwinii*, A., 878.
- Cromwell, E. C. See Keefer, C. E.
- Cromwell, H. W. See Unger, L.
- Crone, H. G., and Norrish, R. G. W., predissociation in fluorescence emission spectra: fluorescence of acetone vapour, A., 998.
- Cronheim, G., effect of blocking the reticulo-endothelial system, with or without simultaneous reduction of atmospheric pressure, on the metabolism of the liver and spleen, A., 860.  
See also Loewy, A.
- Cronin, A., determining the proportion of sand and cement present in cement linings of pipes, B., 589.
- Cronquist, C., production of a preparation suitable as a salve base, a skin preparation, etc., (P.), B., 284.
- Crook, J. H. See Hodgson, H. H.
- Crookall, R., lithology and palaeobotany of British coals, A., 1138.
- Crooker, A. M., Paschen-Back effects in the spectra of thallium, A., 1220.  
See also Crawford, M. F.
- Crooks, G. C. See Beaumont, A. B.
- Crop Protection Institution. See Wilcoxon, F.
- Crosby, E. L., Rhoads, A. E., and Detroit Electric Furnace Co., melting of [metal] borings, (P.), B., 553. Grey cast iron of improved characteristics, (P.), B., 711.
- Cross, H. C. See Gillett, H. W.
- Cross, P. C., calibration of an infra-red spectrometer with a rock-salt prism, A., 585.  
and Daniels, F., chemical aspects of infra-red absorption spectra of ethyl halides, A., 208.
- Cross, R., anti-knock compounds for [fuels for] internal-combustion engines, (P.), B., 695.  
and Cross Development Corp., treatment [purification] of petroleum hydrocarbons, (P.), B., 295. Treatment of hydrocarbon oils, (P.), B., 537, 694.  
and Gasoline Products Co., conversion of hydrocarbon oils, (P.), B., 852.  
and Silica Products Co., concrete and cement mortar, (P.), B., 149. Concrete curing agent, (P.), B., 270. Improving clay, (P.), B., 549.
- Cross, W. M., water-gas, (P.), B., 455.  
and Gasoline Products Co., treatment [cracking] of hydrocarbons, (P.), B., 52. Conversion [cracking] of hydrocarbon oils, (P.), B., 53. Conversion of petroleum hydrocarbons, (P.), B., 456. Treatment [conversion] of hydrocarbons, (P.), B., 456.  
and Southborough, (Lord), heat treatment of steel, (P.), B., 110.
- Cross Development Corporation. See Cross, R.
- Crossley, H. E. See King, J. G.
- Crossley, M. L., Dolt, M. L., and Calco Chem. Co., mordants, (P.), B., 745.
- Crossman, G. J., and Panelyte Corp., phenol-formaldehyde resin sheets and forms, (P.), B., 596.
- Crotogino, F., and Kali-Chemie A.-G., fritted magnesia containing iron, (P.), B., 706.
- Crouch, J. F., Dumas technique for substances difficult to burn, A., 363.
- Crow, A. D., and Grimshaw, W. E., rate of burning of colloidal propellants, B., 285. Combustion problem of internal ballistics. I.—III., B., 366, 446, 653.
- Crow, W., Dittlinger, H., and Dittlinger-Crow Process Co., gel-production utilisation, (P.), B., 547.
- Crowell, J. H. [with Bradt, W. E.], preparation of tri-*p*-tolylselenonium chloride by means of the Friedel-Crafts reaction with selenium dioxide, A., 619.  
See also Bradt, W. E.
- Crowell, R. B., Ebe, S. R., and Amer. Solvents & Chem. Corp., [phthalic] esters of butyl alcohol, (P.), B., 955.
- Crowell, W. R. See Kirschman, H. D.
- Crowfoot, D. See Bernal, J. D.
- Crowley, H. L., Crowley, R. M., and Crowley & Co., Inc., H. L., ceramics, (P.), B., 788.  
and Crowley & Co., Inc., H. L., moulded bodies, (P.), B., 626.
- Crowley, R. M. See Crowley, H. L.
- Crowley, S. W., and De Forest Radio Co., [clean-up agent for] electron-discharge device, (P.), B., 25.
- Crowley & Co., Inc., H. L. See Crowley, H. L.
- Crowther, E. M., climate, clay composition, and soil type, A., 253.  
and Troell, K. E., oxidation of organic matter in pretreatment of soil for mechanical analysis, B., 242.
- Crowther, R. W., and Jenkins & Co., Ltd., W. J., means for enabling the removal of distillation products from lower part of vertical coke ovens, etc., (P.), B., 498.
- Crozier, W. J. See Stier, T. J. B.
- Crucible Steel Co. of America. See McMillen, R. H., and Read, R. S.
- Crüger, control of larvae on kohl-rabi, B., 518. Control of slugs, B., 519.
- Cruess, W. V., Samisch, R., and Pancoast, H. M., fruit-enzyme investigations, B., 937.  
See also Aref, H., Esau, P., Jeffrey, R. N., Mrak, E. M., and Saywell, L. G.
- Cruikshank, G. See Stimmel, B. A.
- Crumb, S. E., and Chamberlin, F. S., comparison of the effectiveness of sustained vacuum and dissipated vacuum in fumigation with hydrocyanic acid gas, B., 519.
- Crump, L. M. See Cutler, D. W.
- Crumrine, W. L. See Landon, J.
- Cruse, A. W. See King, H. J. S.
- Cruser, F. V. D., and Diamond Match Co., treatment of fibrous material [boards] with sulphur, (P.), B., 789.
- Cruto, A. See Serono, C.
- Cryder, D. S., and Gilliland, E. R., heat transmission from metal surfaces to boiling liquids. I. Effect of physical properties of boiling liquid on liquid film coefficient, B., 127.
- Crystler, F. M., and Jones-Dabney Co., [lacquer]-finishing process, (P.), B., 1020.
- Csalán, E. See Hofmann, Ulrich.
- Csegezy, G., determination of small quantities of iodine, A., 797.
- Csiky, I. von, and Török, I. von, determining the unsaturation and lime requirement of soils, B., 83.
- Csiszar, J., "oily-rancid" milk, B., 248. Behaviour of heat, acidity, and preservatives against anaerobic gas formers in pasteurised cheese, B., 730.
- Csonka, F. A., and Jones, D. B., differences in the amino-acid content of the chief protein (glycinin) from seeds of several varieties of soya bean, A., 544.  
and Nicolet, B. H., preparation of optically active thiohydantoins and racemisation of amino-acids as their azlactones, A., 166.
- Cuban-American Manganese Corporation, concentrating manganese ores, (P.), B., 634.
- Cuban-American Sugar Co. See Meade, G. P., and Spencer, G. L.
- Cucuel, F., detection and determination of small quantities of mercury, A., 1133.  
See also Stock, A.
- Cujumzelis, T., Raman effect, A., 337.
- Cukierman, A., electrokinetic phenomena in liquid carbon dioxide, A., 224.
- Culbertson, H. J. See Truesdail, R. W.
- Culbertson, J. B., and Bresson, A. L., velocities of hydrolysis of methoxy-diphenylketimines, A., 679.  
and Nauman, J. L., velocities of hydrolysis of mono- and poly-hydroxydiphenylketimines, A., 679.
- Culbertson, J. T., quantitative study of the precipitin reaction with special reference to crystalline ovalbumin and its anti-body, A., 735.
- Culhane, (Miss) K., influence of basal diet in determination of vitamin-A, A., 644.  
and Underhill, S. W. F., determination of hormones, A., 97. Need for standardisation of products containing added vitamins, A., 323.
- Cullen, G. E., and Wilkins, W. E., electrolytes in human tissue. I. Digestion of tissue and determination of various electrolytes, A., 1319.  
Wilkins, W. E., and Harrison, T. R., electrolytes in human tissue. II. Electrolyte content of tissues from cases with various diseases, A., 1319.
- Cullinan, F. P., relationships between tree response and internal composition of shoots of the peach, A., 198.  
See also Sullivan, J. T.
- Culmer, H. H., desulphurisation of rubber materials, (P.), B., 116.
- Culmer, T. W., and Lincoln Oil Refining Co., purification of petroleum and hydrocarbon compounds, (P.), B., 1045.

- Culpepper, C. W., and Moon, H. H., composition of rhubarb at different stages of maturity in relation to its use in cooking and canning, B., 645.
- Cultrera, R. See Mameli, E.
- Cummings, G. A., Mehring, A. L., Skinner, J. J., and Sachs, W. H., mechanical application of fertilisers to cotton in S. Carolina in 1931, B., 564.
- Cumming, J. F., and Eklund, W. P., composition for use in sealing cracks in metal structures, (P.), B., 432.
- Cumming, W. M., and Howie, G., dinaphthyl bases. II. Reduction of 1:1'-azoxy- and 1:1'-azo-naphthalenes; isolation of 1:1'-hydrazonaphthalene, A., 388.
- Cummings, L. W. T., Stones, F. W., and Volante, M. A., high-pressure rectification. II. *n*-Pentane-*n*-heptane system, A., 896.
- See also Matheson, G. L.
- Cummins, A. B., and Badollet, M. S., Tyndallmetric examination of filtered liquors, A., 1134.
- Cummins, H. A. See Grimes, M.
- Cunard Steam Ship Co., Ltd., Adam, R. A., Holmes, F. C. V., and Perrins, A. W., dispersions of coal in oil, (P.), B., 902.
- Cunliffe, J. A. See Wilson, Hewitt.
- Cunliffe, P. W., application of infra-red photography to textiles, B., 383.
- and Lambert, P. N., measurement of colour of dyed textiles. IX., B., 424.
- Cunningham, A., formation of an aroma resembling that of amyl alcohol in milk, B., 330.
- Cunningham, I. J., calcium and phosphorus metabolism of sheep, A., 857.
- Cunningham, J. P. See Rule, H. G.
- Cunningham, O. C., Addington, L. H., and Watkins, W. E., utilisation of calcium and phosphorus by dairy heifers; high- and low-calcium roughages, A., 305.
- Cunningham, O. D. See Derby, I. H.
- Cunningham, R. W. See Bukey, F. S.
- Cunningham, T. R., determination of titanium in plain-carbon, high-chromium, and 18:8-chromium-nickel steels, B., 1060.
- and Price, R. J., determination of non-metallic inclusions in plain-carbon and manganese steels; iodine and nitric acid extraction methods, B., 231.
- Determination of zirconium in plain-carbon and alloy steels, B., 1060.
- Cunningham, W. P., Zeeman effect in the  $\pi_{\pm}$  Ca H bands, A., 1221.
- Cuny, L., and Robert, I., determination of thyroxine-iodine in thyroid gland powder, A., 1209.
- Cupery, M. E. See Van Arendonk, A. M.
- Cupples, H. L., determination of hydrocyanic acid in air and in air-carbon dioxide mixtures, A., 243.
- Equipment for laboratory fumigations with hydrocyanic acid, with controlled temperature and humidity, B., 285.
- Čupr, V., and Širuček, J., beryllium salts of *para*-derivatives of benzene-sulphonic acid and their hydrolysis, A., 267.
- Curd, F. H., and Robertson, A., usnic acid. I. Derivatives of methylphloroglucinol. II. Usneol. III. Usnetol, usnetic acid, and pyroscopic acid, A., 609, 831, 1167.
- Nitration of 4-nitro-*o*-tolyl *p*-toluenesulphonate, A., 1153.
- Robertson, A., and Stephenson, R. J., lichen acids. IV. Atranorin, A., 396.
- Curie, (Mme. I.), and Joliot, F., conditions of emission of neutrons by action of  $\alpha$ -particles on light elements, A., 334.
- Experimental proofs of the existence of the neutron, A., 335.
- Positive electrons, A., 549.
- Origin of positive electrons, A., 658.
- Positive electrons of transmutation, A., 762.
- Emission of neutrons, A., 883.
- Complexity of the proton and mass of the neutron, A., 883.
- Electrons by "materialisation" and by transmutation, A., 1224.
- Ultra-penetrating radiation in the Jungfrau, A., 1225.
- Curie, (Mme.) Marie, measurement of radioactivity by a large plate condenser, A., 1266.
- and Lub, W. A., long-range  $\alpha$ -rays emitted by active actinium deposit, A., 1223.
- and Rosenblum, S., fine structure of the magnetic spectrum of  $\alpha$ -particles from radioactinium and its derivatives, A., 659.
- and Savel, P., emission of  $\gamma$ -rays by actinium and its derivatives, A., 1224.
- See also Baxter, G. P.
- Curie, Maurice, and Takvorian, S., radioactivity of a fraction from a neodymium-samarium mixture: element 61, A., 442.
- Curo Process Co. See Lerch, W. B.
- Curran, C. E. See Bray, M. W., and Chilson, W. A.
- Curran, J. J., and Sanford, E. A., wrought iron, B., 230.
- Currie, A. N., hæmaturia from handling 5-chloro-*o*-toluidine, A., 977.
- Currie, J. N., Carter, R. H., and Pfäzer & Co., C., production of gluconic acid by fermentation, (P.), B., 936.
- Kane, J. H., Finlay, A., and Pfäzer & Co., C., production of gluconic acid by fungi, (P.), B., 762.
- Currie, N. R. See Hurd, C. P.
- Currie, T., and Russell, Alfred, dopside esters of dihydric phenols, and poly-depsides, A., 393.
- Currier, E. J. See Buehler, C. A.
- Currier, P. M. See Brit. Thomson-Houston Co.
- Curry, J., and Herzberg, G., extension of the visible absorption system of NO<sub>2</sub> to longer wave-lengths, A., 660.
- and Póányi, M., reaction between sodium vapour and cyanogen halides, A., 573.
- Curti, R. See Ferrari, A.
- Curtin, L. P., preservation of wood, (P.), B., 270.
- See also Curtin-Howe Corp.
- Curtin-Howe Corporation, and Curtin, L. P., production and regeneration of ferric oxalate solutions, (P.), B., 626.
- Curtis, E. C., and Mathieson Alkali Works, argon and neon, (P.), B., 866.
- Curtis, F. J., and Merrimac Chem. Co., sizing of fibrous material [paper], (P.), B., 782.
- Curtis, G. M. See Davis, C. B.
- Curtis, H. L. See Scott, A. H.
- Curtis, P. B., Hauge, S. M., and Kraybill, H. R., nutrient value of animal protein concentrates, A., 132.
- Curtis, R. W., and Finkelstein, J., asbestos in permanganate titrations, A., 1133.
- Curtis, W. E., arc spectrum of iodine, A., 440.
- and Evans, S. F., spectra of halogen molecules. I. Iodine, A., 1096.
- Curtiss, L. F., temperature effect and its elimination in Geiger-Müller tube counters, A., 443.
- Testing [the efficiency of] catalysts, (P.), B., 26.
- Cusa, N. W., and Kipping, F. S., organic derivatives of silicon. XLVIII. Steric effects of the cyclohexyl group, A., 1062.
- Custers, J. F. H., De Boer, J. H., and Dippel, C. J., absorption and scattering of light by gelatin, A., 349.
- See also De Boer, J. H.
- Čuta, F., oxidation of thallous salts to thallic, and reduction of thallic salts by sodium arsenite, A., 1262.
- See also Johnston, Herrick L.
- Cuthbertson, C., and Cuthbertson, M., refractivity of para-hydrogen, A., 448.
- Cuthbertson, D. P., elementary composition and calorific value of the fatty acids of the phospholipins of human skeletal muscle, A., 1066.
- and Tompsett, S. L., degree of unsaturation of the fats of human adipose tissue in relation to depth from skin surface, A., 1066.
- Cuthbertson, J. W., electrodeposition of nickel and chromium, B., 153, 872.
- Fatigue-resisting properties of light aluminium alloys at elevated temperatures, B., 392.
- Cuthbertson, M. See Cuthbertson, C.
- Cutler, D. W., and Crump, L. M., physiology of nitrite-forming bacteria, A., 638.
- Cutler, G. H., and Worzella, W. W., wheat-meal fermentation time test of "quality" in wheat as adapted for small plant breeding samples, B., 601.
- Cutler, O. I., and Lewis, J. H., production of caseinogen in the breast during pregnancy, A., 848.
- Cutler, S. C., gas-washing apparatus, (P.), B., 576.
- Cutler-Hammer, Inc. See Fritz, E. A., and Schmidt, E. X.
- Cutright, C. R., and Houser, J. S., codling-moth control with late summer oil applications, B., 647.
- Cutting, W. C. See Taintor, M. L.
- Cuvellier, V., julenite, A., 368.
- Solubilities of complex metal thiocyanates. III. System Ba(CNS)<sub>2</sub>-Co(CNS)<sub>2</sub>-H<sub>2</sub>O, A., 1245.
- Cuyler, W. K. See McCullagh, D. R.
- Cymboliste, M. See Portevin, A.
- Cyr, H. M., properties of paper pigmented with zinc sulphide, B., 663.
- See also Kress, O.
- Czakó, E., and Schaack, E., ten years of gas testing, B., 337.
- Czarny, M., Frolander, F. C., and Capilizer Holding Corp., oil-rectifying apparatus, (P.), B., 539.
- Czech, A., and Haas, W., remedy for preventing or cutting short post-operative pneumonia and catarrhal affections of the bronchial passages, (P.), B., 172.
- Czerlinsky, E. See Gans, R.
- Czermak, F., and Schädler, J., occurrence of arsenic in Eastern Alps, A., 483.
- Czernin, (Count), modification and calibration of Kühl's sedimentation apparatus, B., 207.
- Czernotzky, A., determination of thallium in flue dust and other materials, B., 827.
- Czerny, M. See Barnes, R. B., and Cartwright, C. H.
- Czonczer, G., determination of urinary protein, A., 1187.
- Czuperski, H. See Truszkowski, R.



- Czyzewski, B., biuret reaction of maize, B., 362. Diastatic activity in relation to baking quality and methods for its determination, B., 810.  
See also Kühl, Hugo.
- D.
- Dachniuk, G. D. See Charmandarian, M. O.
- Dachnowski-Stokes, A. P., grades of peat and muck for soil improvement, B., 1026.  
See also Allison, R. V.
- Da Costa, (Mlle.) R. M., absorption in the ultra-violet  $\beta$ -arylacrylic acids and their derivatives, A., 822.
- Da Costa, S. F. G., insulin and carbohydrate metabolism in cancer of the skin, A., 180.
- Da Cruz, A. See Jacobsohn, K. P., and Pereira, F. B.
- Daddow, W. T. See Raiford, L. C.
- Dadlen, A., Pongratz, A., and Kohlrausch, K. W. F., Raman effect. XIX. Raman spectrum of organic substances (isomeric paraffin derivatives. I.). XXII. (Isomeric paraffin derivatives. III.). XXIII. (Polysubstituted benzones. II.), A., 209.
- Dadlez, J., and Koskowski, W., active substance from the lung, A., 176.
- Daevs, K., cause of sand inclusions in heavy [steel] forgings and means for their reduction, B., 192. Effect of composition and pretreatment of steels on life of protective coatings, B., 920.
- Daggs, R. G., and Halcro-Wardlaw, H. S., conversion of fat into carbohydrate in the germinating castor bean. II. Combustion respiratory quotient, A., 1341.
- D'Agostino, O. See Parravano, N.
- Dahl, A., reducing firing of earthenware, B., 1056.
- Dahl, A. I. See Roeser, W. F.
- Dahl, O., mechanism of precipitation-hardening in hardenable silicon-nickel alloys, B., 151.  
and Schwartz, N., separation-hardening of silicon-nickel alloys, B., 631.  
See also Gen. Electric Co., and Tuve, M. A.
- Dahlberg, A. C., and Marquardt, J. C., sterilisation of ice cream freezers, B., 762.
- Dahlberg, A. V., fertiliser value of dried leaves of fruit trees, B., 322.
- Dahle, C. D., and Folkers, E. C., control of the off-flavour appearing in strawberry ice cream, B., 330.
- Dahlen, M. A. See Du Pont de Nemours & Co., E. I.
- Dahmlos, J., and Jung, Gerhard, specific heat, m.p., and latent heat of fusion of hydrogen fluoride, A., 667.
- Daily, J. M., and Amer. Ozone Co., apparatus for purifying water with ozone, (P.), B., 414.
- Dains, F. B., and Eberly, F., alkyl derivatives of mono-substituted thiazolidones. I., A., 1174.  
and Lehmann, G. A., action of bromine and iodine monochloride on some Schiff's bases, A., 65.  
See also Rarick, M. J.
- Daiz, W., "de-poisoned" edible salt for prophylactic purposes, B., 623.
- Dakin, H. D.,  $\beta$ -amino-n-valeric acid, A., 263.
- D'Alberto, A. See Bravo, G. A.
- Dalby, M. See Pummerer, R.
- Dalen, O., extraction of gold from an auriferous sulphide ore, B., 1015.
- Dalenoord, G. F., sizing, finishing, and printing materials, B., 15.
- Dales, B., and Goodrich Co., B. F., rubber-coated articles, (P.), B., 480.
- Dalglish, H. V., Browne, F. L., and Jewett, N. J., apparatus for affecting the physical condition of gases, (P.), B., 817.
- Dalichau, G. See Vorländer, D.
- Dalin, M. A., and Gutuira, V. S., preparation of alcohol from ethylene obtained from cracked gas, B., 997.
- Dalmer, O. See Moll, T.
- Dalton, R. H., gases in glass, B., 964.  
See also Corning Glass Works.
- Daly, C. A., regulating air supply of micro-burners, A., 690.
- Dam, H. See Schönheimer, R.
- Daman, A. C., flotation apparatus, (P.), B., 352.
- Damansky, A. F. See Reich, W. S.
- Damany, G., de-aération of boiler-feed waters; apparatus for determining dissolved oxygen in water, B., 944.
- D'Ambrosio, A., iodised eggs, B., 683.
- Damian, J., ageing of lubricating oils, B., 376.
- Damiens, G., carbon dioxide in beer, B., 520.
- Damköhler, G., statistical derivation of adsorption isotherm for a binary gas mixture, A., 1240. Adsorption of mixtures of nitrogen and argon, A., 1241.
- Damm, H. See Richter, K.
- Dammermann, H., determination of lime requirement of acid soils, B., 162.
- Damodaran, M., Jaaback, G., and Chibnall, A. C., isolation of glutamine from an enzymic digest of gliadin, A., 105.
- Damon, E. B., bioelectric potentials in *Valonia*; effect of substituting potassium chloride for sodium chloride in artificial sea-water, A., 103.
- Damon, G. H., and Daniels, F., photolysis of gaseous acetone and influence of water, A., 792.
- Damon, W. A., occurrence of hydrogen sulphide in steel tank cars used for transport of sulphuric acid, B., 701. Action of hydrogen sulphide on commercial oxides of iron, B., 701.
- Damour, E., and Nadel, A., diminution of content of iron in glasses decolorised by selenium, B., 147.
- D'Amour, F. E., D'Amour, M. C., and Gustavson, R. G., oestrin content of sow ovaries, A., 1338.
- D'Amour, M. C., and Dyke, H. B. van, inhibition of oestrus by extracts of the anterior lobe of the pituitary body, A., 539.  
See also D'Amour, F. E.
- Dănăilă, N., influence of various hydrocarbons, especially of unsaturated (olefines) and aromatic type, on illuminating power of lamp oils. III., B., 338.  
and Boltus-Goruneanu, M., Rumanian transformer oils, B., 419.
- Dane, E. See Wieland, H.
- Danelli, J. F. See Adam, N. K.
- Danés, V. Z. See Chloupek, J. B.
- Daněšova, B. A. See Chloupek, J. B.
- Danet, R., nitrites in potable water, B., 286.
- Danforth, R. S., cataract condensation apparatus, (P.), B., 576.
- Dangelmajer, C., and Roessler & Hasslacher Chem. Co., stabilisation of trichloroethylene, (P.), B., 216.
- Dangoumau, A., vitamin-A in ether extract of wheat flour, A., 323. Fermentation in breadmaking, B., 248. Sitosteryl palmitate in ether extract of wheat-meal, A., 1343.
- Daniel, E. P., and Munsell, H. E., vitamin-A, B<sub>1</sub>, C, and B<sub>2</sub> content of Concord grapes, A., 99.
- Daniel, J., electrokinetic phenomena. X. Electric mobility and charge of proteins in alcohol-water mixtures, A., 349.
- Danielli, J. F., Marrian, G. F., and Haslewood, G. A. D., surface films of cestrin derivatives and of pregnandiol, A., 605.
- Daniels, F. See Coon, E. D., Cross, P. C., Damon, G. H., Hoffman, R. M., and Vernon, E. L.
- Daniels, F. C. T. See Shimer, W. R.
- Daniels, J., and Koppers Co., tunnel kiln; tunnel oven, (P.), B., 368.
- Daniels, L. C., and Nat. Aniline & Chem. Co., anthraquinones, (P.), B., 908.  
Schwindt, C. J., Jaeger, A. O., and Selden Res. & Eng. Corp., comminuted anthraquinone product, (P.), B., 261.
- Schwindt, C. J., and Selden Res. & Eng. Corp., comminuted crystalline phthalic anhydride, (P.), B., 219.  
and Selden Co., separation of [monofrom poly-carboxylic] organic acids, (P.), B., 219. Dibenzanthrone, (P.), B., 297.  
See also Jewett, J. E.
- Danielson, I. S., amino-acid-nitrogen in blood and its determination, A., 965.
- Danielson, W. H. See Myers, V. C.
- Daniewski, W. M., and Corning Glass Works, [treatment of] glass articles [to prevent violent ebullition], (P.), B., 62.
- Danilevskaja, I. V. See Gulinov, V. G.
- Danilov, S. N., and Abramov, F. A., Nikitova (S. Russia) mercury deposits, A., 141.  
and Venus-Danilova, (Mme.) E., isomerisation of hydroxyaldehydes. V. Oxidation-reduction transformations of  $\alpha$ -hydroxyisobutaldehyde, A., 1277.  
See also Venus-Danilova, (Mme.) E.
- Danilov, V., Kurdjumov, G., Plusechnik, E., and Stellezky, T., ferromagnetism of trigonal ferric oxide, A., 340.
- Danilovitch, M. V. See Saldau, P. J.
- Dankov, P. D. See Kistiakowski, V. A.
- Dann, A. T., composition of the urine of cows, A., 627.
- Davies, W., Hambly, A. N., Paul, R. E., and Semmens, G. S. C., phthalyl fluoride, A., 273.  
See also Bull, L. B.
- Dann, M., and Chambers, W. H., factors influencing the metabolism of glucose ingested by fasting dogs, A., 630.
- Dann, W. J., methylornarcotine, glycuronic acid, and vitamin-C, A., 196. Hexuronic (ascorbic acid) as the antiscorbutic factor and its chemical determination, A., 433. Relative velocities of the photochemical reactions of carotene and vitamin-A with radiation of wave-length 2650 Å., A., 540. Alleged antiscorbutic activity of a mixture of methylornarcotine and glycuronic acid, A., 542.



- Dann, W. J., and Moore, T., absorption spectra of mixed fatty acids from cod-liver oil, A., 997.  
See also Birch, T. W., and Booth, R. G.
- Danneel, H., and Hesse, W., action of sulphuryl chloride on metal oxides, A., 684.  
and Schlottmann, F., action of sulphuryl chloride on inorganic compounds. II., A., 795.
- Danneel, R., toxicity of totenone and its derivatives in fish. I., A., 531.  
See also Hüchel, W.
- Dannenber, S. J., water-soluble vitamin concentrates, (P.), B., 491.
- Danner, P. S., and Standard Oil Co. of California, conversion of heavy hydrocarbons, (P.), B., 499. Non-detonating fuel, (P.), B., 903.
- D'Ans, J., Pohle, F., and Schuppe, W., solubility of phosphates, B., 1055.
- Dansi, A., reaction between [ethyl] alcohol and nitric acid in presence of metallic nitrates, A., 255. Action of potassium nitroacetate on metallic salts, A., 359. White mercury fulminate, A., 382. Molecular compounds of *p*-nitrophenylacetic acid, A., 1159.  
and Semproni, A., reagent for enols; [reactions of mercurous nitrate], A., 1277.
- D'Antal, L., [phenol-bitumen] artificial resin, (P.), B., 514. Road surfaces, (P.), B., 1010.
- Dantlo, G., copal oil, B., 637.
- Dantszen, C. See Gen. Electric Co.
- Danzer, W. See Barrenscheen, H. K.
- D'Aquin, E. L. See Gannchean, J. J.
- Darbishire, F. V. See Buxton, B. H., and Tincker, M. A. II.
- Darby, C. R. See Mallon, M. G.
- Darby, H. H., and Bridges, C. B., system of temperature control, A., 800.
- Darby, W. J. See Day, P. L.
- Darbyshire, J. A., apparatus for cathode sputtering, A., 367. Inner potential of metals, A., 1222.  
and Dixit, K. R., nature of polish layers, A., 1237.
- Darbyshire, O., hydrogen ultra-violet lamp, A., 1264.
- Darbyshire, R. W. See Lynn, G.
- Darco Corporation. See Davis, R. G.
- D'Arcy, H. M. See Huston, R. C.
- Darling, C. S., heating fluids by direct contact, B., 943.
- Darling, E. R., and Pacific Lumber Co., heat- and sound-insulating material, (P.), B., 847.
- Darlington, H. T., and Oil Corp. of America, lubricating oil, (P.), B., 500. Hydrocarbon [cracking] treatment, (P.), B., 539. Apparatus for treating hydrocarbon and other gases and oils, (P.), B., 616. Treating hydrocarbons, (P.), B., 854.  
and Schuster, M. B., treating [distilling and cracking] hydrocarbons, (P.), B., 100. Treating [cracking] of liquid hydrocarbons, (P.), B., 138.
- Darmois, E., and Chalin, R., cryoscopy of electrolytes in molten  $\text{CaCl}_2 \cdot 6\text{H}_2\text{O}$ , A., 22.
- Darnis, F. See Lamare, J. P.
- Da Rocha, J. B., and Souza, D. de A., chemical analysis of disinfectants derived from coal tar and used in agriculture and animal husbandry, B., 846.
- Darrah, W. A., heat application and equipment therefor, (P.), B., 768. Surfacing of board, (P.), B., 862.
- Darrin, M., and Burt Co., Ltd., F. N., composition of matter [from paper material], (P.), B., 862.
- Darrow, D. C., Hopper, E. B., and Cary, M. K., plasmaphoresis oedema. I. and II., A., 303.
- Darrow, K. K., electricity released from matter, A., 884.
- Darrow, M. S., and Sweeney, L. S., treatment of petroleum oils, (P.), B., 996.
- Darsey, V. M., and Parker Rust Proof Co., rust-proofing material and method of treating the same, (P.), B., 395.  
See also Tanner, R. R.
- Darzens, G., glycidic synthesis of aldehydes, A., 53.  
and Lévy, A., general method for preparation of aldehydes by degradation of acids, A., 377. Synthesis of  $\alpha$ -dimethylated aliphatic aldehydes of high mol. wt., A., 377.  
and Meyer, M., general method for synthesis of aldehydes, A., 491.
- Darzine, E., *B. paratuberculosis* of Moeller and Grassberger, A., 190.
- Das, A. K., Sen, G. C., and Pal, C. K., composition of rain-water of Sylhet, A., 1027.
- Das, S., effect of gypsum on calcareous soils, B., 679.
- Dasannacharya, B. See Nayar, P. G. N.
- Dashevski, M. M. See Kiprianov, A. I.
- Dasgupta, A. C. See Krishnan, K. S.
- Das-Gupta, J. M., decompositions and reactions of carbamide. I. Reactions of carbamide with hydrazines, aldehydes, ketones, etc. II. Reactions of carbamide with acids, anhydrides, etc. III. Reactions of carbamide with amines and amino-acids, A., 814, 824, 962.
- Das-Gupta, N. C., conjugation of benzoic acid by Indian cattle, A., 305.  
See also Warth, F. J.
- Das-Gupta, S. K. See Mukherjee, J.
- Da Silva, N. B. G. See Soares, J. da V.
- Da Silveira, A. See Bauer, E.
- Dasler, W. See Adkins, H.
- Dastur, R. H., and Asana, R. D., effect of plane-polarised light on formation of carbohydrate in leaves, A., 102.  
and Chinoy, J. J., carbon dioxide assimilation of leaves of *Oryza sativa*, L., A., 757.  
and Desai, B. L., relation between water content, chlorophyll content, and rate of photosynthesis in tropical plants at different temperatures, A., 436.  
and Samant, K. M., products of photosynthesis in leaves in artificial and in natural light, A., 646. Determination of carbohydrates in leaves, A., 1217.
- Datta, A. K., and Saha, M. N., absorption spectra of saturated halides of multi-valent elements, A., 112.
- Datta, R. L., purification of crude saltpetre, B., 463. Composition and charge computing for soap, B., 1016.
- Datta, S. See Bose, D. M.
- Daugherty, S. B., apparatus for effecting a partial separation of mixed gases, (P.), B., 130.
- Daum, H. A., and Electro-Matic Scale Eliminator, Inc., means for removing boiler scale and preventing formation thereof, (P.), B., 608.
- Daum, K. See Landt, H.
- Daum, W. See Dieterle, H.
- Daum-Grub, F. See Nolte, O.
- Dauphiné, A., presence of proteins in the pecto-cellulose membrane, A., 878.
- Daur, R., reaction between methane and carbon tetrachloride, A., 254. Formation, stability, and detection of methyl hydrogen sulphate, A., 256. Action of chlorine and sulphuric acid on methane, A., 256.
- Dauvalter, A. N., slag nephelite glass, B., 1055.
- Davankov, A., fatty [hydroxy]-acids insoluble in light petroleum, B., 661. Water-soluble carboxylic acids obtained by oxidation of paraffin, B., 901.
- Davenport, H. A., block staining of nervous tissue with silver. III. Pericellular end-bulbs or boutons, A., 1185.  
See also Beech, R. H.
- Davey, W. J. G., gas burner jets, B., 6.  
See also Wood, J. W.
- Davey, W. P. See Sargent, G. W.
- Davgal, N. D., refractory clays of the Moiski [W. Siberia] deposits, B., 227.
- David, A. D., and Universal Oil Products Co., cracking of petroleum hydrocarbons, (P.), B., 100.
- David, L., detection of veronal and luminal in presence of one another, B., 43. Determination of morphine. III., B., 332.
- David, W. T., Brown, J. R., and El Din, A. H., internal energy of gases after explosion, A., 30.  
and Parkinson, R. M., radiation in gaseous explosions, A., 232.
- Davidenkov, N. N., and Klassen-Nekludova, M. V., effect of water on rigidity of rock-salt, A., 1005.
- Davidovich, B. A., dressing Minussinsk copper ore, B., 308.
- Davidovskaja, V. L. See Sagir, J.
- Davidshöfer, F. See Kautsky, H.
- Davidsohn, J., fat-hardening without hydrogen, B., 28. Alkalinity of dilute aqueous soap solutions and effect thereon of addition of free alkali, B., 197. Determination of glycerol in soap spent lye, B., 397.  
and Better, E. J., saponification of oils and fats by the cold process, B., 398.
- Davidson, A. See Imperial Chem. Industries.
- Davidson, A. W., and Chappell, W., acetic acid-acetate solutions, A., 1119.  
and Geer, H. A., solubility of nitrates in anhydrous acetic acid, A., 345.
- Davidson, D. See Bogert, M. T.
- Davidson, G., Laucks, I. F., and Laucks, Inc., I. F., water-resistant vegetable protein-containing adhesive, (P.), B., 278.  
See also Eilertsen, L. W., and Laucks, I. F.
- Davidson, G. F., determination of  $p_H$  of hypochlorite solutions with the glass electrode, B., 587. Dissociation constant of hypochlorous acid, B., 587.  $p_H$  variations of hypochlorite solutions during the bleaching of cotton, B., 587.
- Davidson, J., possible effect of  $p_H$  on the absorption of potassium and phosphorus by wheat plants under field conditions, A., 874.
- Davidson, J. C., electrical condenser, (P.), B., 875.
- Davidson, J. G., and Carbide & Carbon Chemicals Corp., motor fuel, (P.), B., 661.  
and McClure, H. B., applications of vinyl resins, B., 638.
- Robertson, H. F., and Carbide & Carbon Chemicals Corp., calcium carbide cake, (P.), B., 427.

- Davidson, P. M., rotational uncoupling, with application to the singlet hydrogen bands, A., 107. Quantisation of the Kramers and Pauli model, A., 1226. See also Richardson, O. W.
- Davidson, T. M., smokeless fuels, (P.), B., 850.
- Davidson, V. See King, E. J.
- Davidson, W., blending of coals for coke making, B., 291.
- Davidson, W. M. See Watson, C. J.
- Dave, T. A. S. See Loveless, A. H.
- Davies, A. H., composition for use in metallurgical operations, (P.), B., 69.
- Davies, B. L., stress-strain relationship of ebonite, B., 1022.
- Davies, C. W., limiting conductivities of salts in non-aqueous solvents, A., 784. [Electrolytic] dissociation of zinc sulphate, A., 1012.
- and Banks, W. H., dissociation of acetic acid in water, A., 464.
- and Innes, R. F., determination of buffer salts and acidity in water extracts of vegetable-tanned leathers, B., 160. See also Righellato, E. C.
- Davies, D. G., specific heats of aqueous solutions of potassium *n*-octoate at 15°, A., 689.
- Davies, D. P. See McBain, J. W.
- Davies, D. R., and Davies, W. C., colorimetric determination of phosphorus in the presence of interfering substances, A., 330. See also Gough, J.
- Davies, D. T., three coal-cleaning processes new to British practice, B., 770.
- Davies, E. B., revised classification of soil types, A., 589. Dispersion and deflocculation of soils, B., 482.
- Davies, E. C. See Powell, A. R.
- Davies, E. C. H. See Bonar, R.
- Davies, E. R. H. See Bury, C. R.
- Davies, G. P. See Imperial Chem. Industries.
- Davies, I. A. See Grumell, E. S.
- Davies, J. See Cooper, E. D.
- Davies, J. S. H. See Imperial Chem. Industries.
- Davies, R. G., and Mott, R. A., coko formation. VIII. Sheffield laboratory coking test. IX. Softening and swelling of coal in relation to plasticity, B., 899, 993.
- Davies, R. I., Heilbron, I. M., and Irving, F., nitration of 3-methoxyacnaphthenequinone and 2-methoxynaphthalic anhydride, A., 69.
- Davies, R. J., diffusion of electrolytes, A., 347.
- Davies, R. M., elastic contents of Rochelle salt by a dynamical method, A., 893.
- Davies, W., grasslands of Australia and some of their problems, B., 804.
- and Dick, J. H., action of metallic oxides on benzotrichloride and benzylidene chloride, A., 65.
- Hamby, A. N., and Semmens, G. S. C., tautomerism of phthalyl bromide, A., 1293. See also Dann, A. T.
- Davies, W. C., tertiary phosphines containing *sec*-alkyl radicals, A., 1039.
- and Morris, C. J. O. R., *p*-phenoxyphenyl-dichlorophosphine, A., 171. See also Davies, D. R., and Jones, W. J.
- Davies, W. H., Heilbron, I. M., and Jones, W. E., unsaponifiable matter from the oils of elasmobranch fish. IX. Structure of batyl and selachyl alcohols, A., 374.
- Davies, W. L., distribution of nitrogen in milk with reference to solids-not-fat content, B., 363. Metallic contamination [of milk] in processing, B., 602.
- Davies, W. M., and Jones, E., control of warble flies, B., 86.
- Davies-Graham, L. R., can cement be over-ground? B., 229.
- Davis, A. B., and Dick Co., A. B., compound esters of hydroxy-aromatic acids, (P.), B., 219. Acetylated carbohydrate gum, (P.), B., 803. and Monsanto Chem. Works, manufacture and purification of *p*-nitroaniline, (P.), B., 999.
- Davis, A. C., tensile strength tests of Portland cement, B., 107. Compression and transverse tests of Portland cements, B., 269. Determination of setting time of Portland cement, B., 467. Chemistry of cement, B., 628.
- Davis, A. G., and Gasoline Products Co., treatment [conversion] of hydrocarbons, (P.), B., 456.
- Davis, B., Luck, J. M., and Miller, A. G., differential inactivation of insulin, A., 1336.
- Davis, C. B., and Curtis, G. M., blood-iodine. I. Determination, A., 522.
- Davis, C. F., and Wise, M., report of Subcommittee on selenium as a Kjeldahl catalyst in the cereal laboratory, B., 1078.
- Davis, C. W. (Washington). See Gottschalk, V. H.
- Davis, Charles W. See Werkman, C. H.
- Davis, Clark W. See Du Pont de Nemours & Co., E. I.
- Davis, D. S., behaviour of sulphur dioxide towards water, A., 120.
- Davis, E. F., and Warner Gear Co., cyaniding furnace [for ferrous articles], (P.), B., 25.
- Davis, F. L., and Scarseth, G. D., correlations between crop yields and readily available phosphorus in soils as determined by Truog's method, B., 201.
- Davis, F. V., mildew on silk-cellulose acetate materials, B., 342.
- Davis, G. F., sized fibrous product, (P.), B., 286. Fibrous sheet material, (P.), B., 826.
- Davis, G. H. B., and Standard-I. G. Co., preparation of catalytic materials [active molybdenum trioxide], (P.), B., 866.
- Davis, G. P., vulcanisation of [rubber], (P.), B., 318.
- Davis, H. E., low-temperature comparator for coefficient of expansion of ceramic bodies, B., 548.
- Davis, H. H., and Johnson & Co., Ltd., S. H., pumps for filter-presses, etc., (P.), B., 992.
- Davis, H. M. See Glockler, G.
- Davis, H. S., initial absorption rates of carbon dioxide by water and by dilute sodium carbonate solutions, A., 1251. and Petroleum Chem. Corp., recovery of unsaturated hydrocarbons and their derivatives from mixtures containing them, (P.), B., 215. Preparation of alcoholic derivatives of olefine-bearing substances, (P.), B., 215. See also Ramsay, J. W.
- Davis, J. E. (Chicago), and Dyke, H. B. van, oxygen consumption of fasting white mice, A., 622.
- Davis, J. E. (London). See South Metropolitan Gas Co.
- Davis, L. G., respiration and fermentation of lactic acid bacteria, A., 1206.
- Davis, L. L., and Continental Oil Co., de-hydration of [petroleum] oils, (P.), B., 455.
- Henriksen, A., Allinson, J. J., and Continental Oil Co., removal of [water-soluble] impurities from crude petroleum, (P.), B., 996.
- Davis, M. B., manufacture of sweet and fermented cider by the closed cuvée method, B., 809.
- Davis, M. N., photo-electric opacity tester [for paper], B., 542.
- Davis, R., and Neeland, G. K., variation of photographic sensitivity with development time, B., 252. Comparison of several developers and the specification of relative sensitivity, B., 940.
- Davis, R. C. See Cantarow, A.
- Davis, R. G., and Darco Corp., revivification of spent carbon, (P.), B., 579.
- Davis, R. L., alkaline process for obtaining high yields of pulp from aspen wood, B., 910.
- Davis, R. M. See De Bruyne, J. M. A.
- Davis, R. O. E., and Scholl, W., ammoniation of peat for fertilisers, B., 483. See also Scholl, W.
- Davis, T. L., and Elderfield, R. C., nitro-alkylguanidines; dearrangement and preparation by nitration, A., 383.
- Huntress, E. H., and Swann Research, Inc., preparation of [explosive] diazonium perchlorates of aminodiphenyl [detonators], (P.), B., 253. See also Wu, L. C.
- Davis, W., properties of rubber threads used in textiles, B., 357.
- Davis, W. A. See Eyre, J. V.
- Davis Emergency Equipment Co., Inc. See Downs, C. R.
- Daviss, C. A. V. See Fuller, G. P.
- Davison, C. J., and Germer, L. H., diffraction of electrons by metal surfaces, A., 1222.
- Davy, C. H., and Sparks, C. H., post-war developments in high-pressure boilers, B., 255.
- Davy, E. D. See Bliss, A. R., jun., and Hester, E. E.
- Davy, L. G., and Sidgwick, N. V., f.p. of solutions of nitrobenzene in benzene and cyclohexane and their relation to the electrical polarisation, A., 459.
- Daw, B. G., production methods used in chromium plating, B., 109.
- Daw & Co., H. See under Nimz, C.
- Dawbarn, M. C., and Farr, F. C., amount of iodine in the thyroid glands of Australian merino sheep, A., 1196. See also Robertson, T. B.
- Dawe, A., recent developments in the utilisation of coal, B., 770. Tube method for determination of fusion temperature of coal ash, B., 849.
- and Potter, N. M., laboratory apparatus for mechanical sampling of coal; the "Cascade" sampler, B., 898.
- Dawihl, W., composition of magnesium oxychloride, B., 668. Swelling of lime and its significance in building practice, B., 707.
- Dawsey, L. H., determining approximately the evaporation of petroleum spray oils under field conditions, B., 934.
- and Haas, A. J., jun., determining quantity of mineral oil retained by leaf surfaces after spraying, B., 440.
- Dawson, C. R., simple test for streaming in the porons diaphragm diffusion cell, A., 223.

- Dawson, D. H., and Johnston, Herrick L., spectrum of the OH molecule: a new (2,2) band; satellite series in  $\lambda$  3122; A-type doubling and electronic spin doubling, A., 763.  
See also Johnston, Herrick L.
- Dawson, E. S., jun. See Gen. Electric Co.
- Dawson, H. M., ionisation of sulphuric acid, A., 569.
- and Dyson, N. B., hydrolysis of salts of halogen-substituted aliphatic acids in aqueous solution, A., 234. Mechanism of substitution in organic compounds; elimination of bromine from bromoacetic acid and the bromoacetates, A., 1125.
- and Lowson, W., induction period in the formation of glycolic acid by hydrolysis of halogen-substituted acetates, A., 1276.
- Pycoc, E. R., and Spivey, E., hydrogen sulphate ion catalysis in hydrolysis of esters, A., 471.
- and Spivey, E., catalytic effects produced by tartaric acid, sodium hydrogen tartrate, and by first- and second-stage tartrate buffers, A., 33.
- Dawson, J. R., Graves, R. R., and Horn, A. G. van, Sudan grass as hay, silage, and pasture for dairy cattle, B., 604.
- Dawson, L. E., Keane, J. C., and Paine, H. S., relation between surface tension, colloid content, colour, and alkalinity of sugar-factory products, B., 806.
- Dawson, L. L., Votator process for chilling and aerating oils and fats, B., 878.
- Dawson, T. P., reaction of halogen-substituted aryl alkyl and dialkyl sulphides with benzylamine. I, A., 709. Vesicant action of chloroalkyl sulphides, A., 1076.
- Dawson, T. R., preservatives in a [rubber] tyre-tread stock, B., 317.
- and Gallie, G., whitening. II. Properties in rubber, B., 79.  
See also Porritt, B. D.
- Dax, P. J., and Canada Malting Co., malting of rice, (P.), B., 521.
- Day, D. E., purification of petroleum oils, (P.), B., 537. Purification of naphtha stocks, (P.), B., 996.
- Day, E. L., treatment of vapour of wood [distillation] or its by-products, (P.), B., 692.
- Day, F. E. See Bishop, L. R.
- Day, L., electric precipitator [for gases], (P.), B., 475.  
See also Phemister, D. B.
- Day, P. L., vitamin-B<sub>2</sub> in root and leaf vegetables, A., 325.
- and Darby, W. J., vitamin-B<sub>2</sub> in fruits, A., 1090.
- Dayan, F. See Woog, P.
- Dayton, R. W., decarburisation of iron-nickel-chromium alloys, B., 630.
- Dayton Rubber Manufacturing Co. See Freedlander, A. L.
- De, D. C. See Stewart, A. D.
- Deaglio, R., photo-electric effect in single crystals of cuprite, A., 554.
- Deakers, T. See Dunn, M. S.
- Dean, B. E., effect of soil type and aeration on root systems of aquatic plants, B., 645.
- Dean, D. K., and Foster Wheeler Corp., heat recovery [from hot pulp liquors], (P.), B., 960.
- Dean, H. K., and Hilditch, T. P., factors influencing the component fatty acids of butter, A., 848. Composition of commercial palm oils. III. Difference between component acids of oils from Liberia or the Ivory Coast and those of native or plantation palm oils from other localities, B., 594.
- Dean, M. See Noble, I. T.
- Dean, R. W. See Aull, J. E.
- Deanesly, R. M., and Shell Development Co., concentration of olefines in a mixture containing them, (P.), B., 1046.  
See also Bataafsche Petroleum Maats.
- De Araujo, C. E. N., jun., hydrogenation of petroleum, B., 901.
- Dearborn, R. J., Gray, G. W., and Texas Co., decomposition of organic materials, (P.), B., 499.
- Deb, S. C., spectral lines of Cl v and Cl iv. A., 1. Absorption spectra of saturated halides, A., 112. Arc spectrum of iodine, A., 200.  
and Mohanti, H. B., first spark spectrum of tellurium, A., 107.  
and Mukerjee, B., absorption spectrum of calcium chloride vapour, A., 111.  
See also Saha, M. N.
- Debacher, M. O. See Klooster, H. S. van.
- De Baufre, W. L., rectification of mixed gases, (P.), B., 371. Continuous production of high-heating-value gas, (P.), B., 534.
- De Belsunce, G., manufacture of solvents from maize grain [by fermentation], B., 88.
- Debenedetti, A., effusive rocks from South-West Sardinia, A., 1030.
- Debenedetti, B. See Tonegutti, M.
- Debenedetti, E. See Tocco, G.
- De Beukelaer, F. L. See Christopher, E. F.
- De Beule, P., nitro-compounds obtained by direct nitration of toluene in preparation of T.N.T., A., 386.
- Debienne, Y. See Rathery, F.
- Debiene, A., new radioactive substances, A., 442.
- De Boer, H. W., relation between chemical composition and botanical origin of Dutch honey, B., 731.
- De Boer, J. H., adsorption of nitrophenol and iodine on calcium fluoride films, A., 346.
- and Custers, J. F. H., change of optical absorption of iodine on being bound, A., 656.
- and De Groot, W., position of absorption bands of coloured alkali halide crystals, A., 884.
- and Dippel, C. J., intermicellar combination and hydration in gelatin gels, A., 349. Light absorption and lattice energy for the alkali hydrides, A., 444. Vapour pressure of caesium, A., 668. Sintering phenomena in vacuum-sublimed films of salts, A., 672.
- and Dippel, C. J. [with Custers, J. F. H.], optical absorption and gelatinisation of gelatin, A., 462.
- and Dippel, C. J. [with Otten, J. A.], adsorption of caesium on calcium fluoride films, A., 671.
- Houwink, R., and Custers, J. F. H., change of light absorption and refraction in the formation of artificial resin masses, A., 885.
- and Lehr, J. J., [absorption of] atomic hydrogen on glass and calcium fluoride, A., 1112.
- De Boer, J. H., and Teves, M. C., thermal and photo-electric emission of caesium-caesium oxide cathodes and influence of caesium atoms in the dielectric, A., 887.  
See also Custers, J. F. H., and Dippel, C. J.
- De Booy, J. See Bredée, H. L.
- De Bose, M. H. See Loyarte, R. G.
- De Broske, E. D., carbon-coating of [plate] electrodes, (P.), B., 154.
- De Brouckère, L., adsorption of electrolytes by crystalline surfaces, A., 457.  
and Gillet, A. E., colorimetric determination of iron by the thiocyanate procedure, A., 924.
- De Bruijn, H. See Kautsky, H.
- De Bruin, T. L., spectrum of doubly-ionised neon (Ne III), A., 1.
- Humphreys, C. J., and Meggers, W. F., second spectrum of krypton, A., 1219.
- De Bruyker, C. See Baetslé, R.
- De Bruyne, J. M. A., Davis, R. M., and Gross, P. M., dipole moment and group rotation. I. Moments of chloro- and nitro-benzyl chlorides and effect of group separation, A., 1230.
- Debuch, C. P., rotary kiln as roasting furnace, B., 367.
- Debucquet, L., and Velluz, L., preparation of molybdic oxide and sulphides (molybdenum, tellurium, arsenic) in the crystalline state, A., 361. Crystalline organic thio-salts of As, Mo, Sn, Te, W, and Ge, A., 401. Compounds of hexamethylenetetramine, A., 813. Microchemical determination of magnesium as magnesium calcium hexamethylenetetramine ferrocyanide, A., 922.
- De Buraaga, J. S., synthesis of an isomeride of plumbagin, A., 1053.
- De Bustinza, F. See Rius, A.
- Debye, P., scattering of light by sound waves, A., 8. Determination of mass of electrolytic ions, A., 348. Electrical conductivity of solutions of electrolytes in strong fields and at high frequencies, A., 908. Relations between stereochemistry and physics, A., 1231.  
and Sack, H., demonstration of the high-frequency effect in electrolytes, A., 908.
- Decarie Incinerator Corporation. See Woodman, J. C.
- De Caro, L., anti-oxidative action of thyroxine and of substances resembling thyroxine, A., 1126.
- Decarrière, and Antheaume, J., iron catalyst for hydrogenation of carbon monoxide at ordinary pressure, A., 789.
- De Carvalho, A. See Lepierre, C.
- De Cavel, and Roegiers, M., relation between temperature and viscosity in lubricating oils, B., 293.
- De Ceuster, P., micro-Meyer method of vapour density determination, A., 1266.  
and Verstraete, E., saponification of wax, B., 398.
- De Cew, J. A., and Process Engineers, Inc., [waterproof or insulating] fibrous material, (P.), B., 700.
- Déchène, G., spectrographic examination of radiation from resistance cells, A., 884.
- De Chesne, E. B., carbamido-formaldehyde condensation and polymerisation products, B., 30.
- Deck, H. S., apparatus for melting explosives, (P.), B., 1038.

- Deckert, W., detection of ethylene oxide in residual gas, B., 125.
- Décombe, J., acylacetic esters, A., 50. Condensation of phenols with dimethylamine and formaldehyde, A., 498. Condensation of formaldehyde, amines, and phenols, A., 1046.
- Decorative Development, Inc., imitation leather, (P.), B., 161.
- De Cori, P. See Levi, M. G.
- De Coriolis, E. G., Barber, H. B., and Surface Combustion Corp., sooty atmosphere in gas-fired furnaces, (P.), B., 579.
- De Coursey, W., apparatus for pulverising materials, (P.), B., 369, 768.
- De Cugnac, A., soluble sugars of grain from varieties of wheat and their relationship to baking value, B., 39.
- Dede, L., electrode material for spark spectroscopy, A., 1264. Standard and precision weights of molybdenum-chromium-nickel alloy, A., 1266.
- De Degiorgi, A. C., effect on blood-sugar of organic compounds with labile sulphur. II., A., 859.
- Dědek, J., and Dolák, F., affinity [of raw beet sugars], B., 1076.
- Grut, E., and Pedersen, V. S., sugar lost in molasses as criterion of quality of the juice, B., 165.
- and Ivančenko, D., technological evaluation of beet, B., 86.
- and Kmuníček, J., first saturation, using hydrochloric acid, B., 807.
- De Demo, M. See Cornubert, R.
- De Diesbach, H., and Lempen, H., benzoyl derivatives of indigotin, A., 285.
- De Directie van de Staatsmijnen in Limburg, fertiliser, (P.), B., 405.
- De Donder, T., affinity. III., A., 211, 450, 1232.
- Dedrick, D. S. See Eversole, W. G.
- Dee, P. I., and Walton, E. T. S., photographic investigation of transmutation of lithium and boron by protons and of lithium by ions of the heavy isotope of hydrogen, A., 1100.
- De Eds, F., chronic fluorine intoxication, A., 1329.
- Dee-Hy Products Co. See Washburn, R. M.
- Deem, J. W., control of ragwort on grassland; spraying and dry-dusting methods of using sodium chlorate, B., 982.
- Deemer, R. B., and Schrieker, J. A., determination of arsenic in plant materials, A., 875.
- Deér, E., jun., preparation and reactions of raspberry syrups, B., 1030.
- Deerr, N., new model polarimeter, A., 585. Reduction of sugar-factory results to a common basis of comparison, B., 841.
- De Fayard, J., essential oil of maritime pine needles, B., 1084.
- De Fazi, R., constitution of cholesterol, and a new isomeride, A., 710.
- De Ferrière, J. F.,  $p_H$  of soils of northern Africa and French West Africa, B., 162.
- and Natier, E., statistical examination of  $p_H$  and assimilable potassium in African soils, B., 162. Climatic zones and zones of  $p_H$  in soils: their relationship with assimilable potassium, B., 838.
- Deflandre, M., crystal structure of diaspor, A., 1107.
- De Fleury, R., magnesium: its melting, casting, founding, and uses, B., 351.
- and Caillon, A., flux for protecting, refining, and eliminating chlorides in casting of magnesium, B., 233.
- De Florez, L., furnaces for heating fluids, (P.), B., 495.
- and Texas Co., furnace, (P.), B., 527.
- De Fonbrune, P. H. D., working of glass, (P.), B., 1056.
- De Forest Radio Co. See Crowley, S. W., and Ruffley, F.
- De Forest Radio Telephone & Telegraph Co. See Holborn, F., and Hunter, F. L., jun.
- Defren, G., preparation of chocolate, (P.), B., 1034.
- Degard, C. See Huybrechts, M.
- Deger, E., rocks from the volcano "Pacaya," Guatemala, A., 1029.
- De Gier, J. See Zeeman, P.
- Degiorgi, H. See Zappi, E. V.
- De Goede, B., modified method of [sugar-] juice clarification in a defecation factory, B., 485.
- De Golyer, A. G., welding, (P.), B., 553.
- Degos, R. See Loeper, M.
- De Graaf, J., determination of volume percentage of alcohol in water-alcohol mixtures at 4°, A., 486.
- De Graaff, W. C., bacteriological condition of ice for consumption, B., 123.
- De Graeve, P. See Fosse, R.
- De Gray, R. J., surface tension balance, A., 250.
- De Groot, J. E., sucrose losses due to action of thermophilic micro-organisms in factory operation, B., 486.
- De Groot, W. See De Boer, J. H.
- De Groote, M., Monson, L. T., Wirtel, A. F., and Tretolite Co., breaking of petroleum emulsions, (P.), B., 952.
- and Tretolite Co., preventing accumulation of solid matter in oil wells, pipe-lines, and flow-lines, (P.), B., 455, 853.
- Degtjar, M. See Akulov, N.
- Degtyareva, A. See Bessolov, I. E.
- Deguide, C., soap intended more particularly for preparation of solid or consistent grease, (P.), B., 975.
- Deguy, C. See Guitonneau, G.
- De Haan, A. See De Jong, H. G. B.
- De Haan, K. See Ginneken, P. J. H. van.
- De Haas, J. J., formation of unimolecular films of substances not containing a polar group, A., 775.
- De Haas, W. J., extremely low temperatures, A., 1026.
- and Alphen, P. M. van, dependence of susceptibility of bismuth single crystals on the field, A., 14. Change of resistance of metals in a magnetic field at low temperatures, A., 667. Magnetic properties of metals at low temperatures, A., 667.
- and Jurriaanse, T., superconductivity of gold-bismuth [alloys], A., 18.
- Wiersma, E. C., and Kramers, H. A., attainment of low temperatures by adiabatic demagnetisation, A., 769.
- See also Gorter, C. J.
- De Hemptinne, M., Raman spectra of C and Si compounds, A., 113.
- Wouters, J., and Fayt, (Mlle.) M., Raman spectrum of silicon trichlorobromide, A., 553.
- Dehlinger, U., transformation of metal phases. IV. Kinetic curves for the process of precipitation. V. Calculation of kinetic curves for the system Au-Cu, A., 115, 896. Electron configuration in metallic phases, A., 881. Explanation of the discontinuity of superconductivity, A., 1005. Theory of recrystallisation, A., 1105. Structure of crystals. I., A., 1234.
- and Giesen, F., relation between regular atomic distribution and resistance limits [of electroplated brass], B., 24.
- and Glocker, R., existence of limiting resistance in mixed crystals having a disordered atom arrangement, A., 338.
- and Mendl, F., strength of  $\beta$ -brass, B., 510.
- Osswald, E., and Bumm, H., transformation of cobalt single crystals, A., 665.
- Dehls & Stein. See Koenigsberger, F.
- Dehn, W. M., and Jackson, K. E., phosphoric acid in organic reactions, A., 1277.
- See also Beuschlein, W. L., Capps, H. H., and Liston, T. R.
- Dehne, K., Deuton acid-cock, B., 145.
- D'Hotman de Villiers. See under De Villiers.
- De Hoz, R. M. See Masciottra, R. L.
- Dei, C., effect of moisture on spark potential in air, A., 656.
- Dei-Karkhanova, A. N. See Likbushin, K. P.
- Deines, G., and Kleinschmit, R., acidity determinations in forest soils. II. and III., B., 359, 882. Are variations in soil  $p_H$  due to microbiological or physico-chemical effects? B., 1071.
- Deines, O. von, colloidal sulphur, A., 348. Amorphous sulphur, A., 919. Rhombohedral and a second monoclinic modification of sulphur, A., 1258.
- and Christoph, E., preparation of heavy metal polythionates, A., 919.
- Deininger, J., micro-sublimation and micro-m.p. determination, A., 481.
- Deinse, F. van. See Valtis, J.
- De Ipola, R. V. See Orgaz, J.
- Deisenhammer, E., improvement of petroleum by catalysis, B., 497. Preparation of gas-adsorbent carbon by water-vapour activation, B., 947.
- Deiss, E. See Bauer, O.
- Deitz, L. S., jun., and U.S. Vanadium Corp., recovery of ammonia [from gas mixtures], (P.), B., 59.
- Deitz, V. R., vapour pressure of crystalline benzene and cyclohexane, A., 344.
- and Andrews, D. H., symmetry of the benzene molecule, A., 212.
- Déjardin, G., spectroscopic applications of the electrodeless discharge, A., 201.
- and Latarjet, R., spectral sensitivity of caesium oxide photo-electric cathodes, A., 338.
- and Schwégler, (Mlle.) R., photo-electric properties of magnesium, A., 662.
- De Jong, H. G. B., complex coacervation. XVI. Mechanism of the union of oppositely-charged ions, A., 569.
- and De Haan, A., complex coacervation. XX. Correlations; systems with two co-existing complex or auto-complex coacervates, A., 903.
- Horst, J. H. van der, and Lafleur, A., complex coacervation. XVII. Specific effects in the mixed coacervation type 4-1 of gum-arabic sol, A., 568.

- De Jong, H. G. B., Kruyt, H. R., and Lens, J., lyophilic colloids. XVI. Viscosity and sol concentration. XVIII. Concentrated sols and the structure of the micelle, A., 23, 779.
- and Linde, P. van der, complex coacervation. XVIII. Experiments on arabates in connexion with the origin of capillary-electrical charge. XIX. (a) Autocomplex coacervation with negative and positive hydrophilic sols. (b) Correlation between the reciprocal hexol number and tendency of negative hydrophilic sols to form autocomplex coacervates, A., 903.
- and Menalda, F. A., complex coacervation. XIV. Autocomplex flocculation of sodium nucleate (yeast) sols, A., 350.
- and Winkler, K. C., complex coacervation. XV. Coacervation and precipitation of types 4 and 4-1 by sodium arabate sol, A., 569.
- De Jong, W. F., and Stek, H. J., blue sodium-tungsten bronze, A., 12.
- Dekker, J., and Dekker-Koers, C. H., bactericidal properties of silver chloride, A., 319.
- Dekker, K. D., minimum lime content in [sugar-juice] carbonatation process, B., 87.
- and Thomson, W., determination of lime addition in [sugar-juice] carbonatation, B., 600.
- Dekker-Koers, C. H. See Dekker, J.
- De Kleermaeker, K. J. B., and Bers, G. H. C. van, determination of ammonia-nitrogen in artificial fertilisers, B., 726.
- De Kok, P. See Waterman, H. I.
- De Kok, W. J. C. See Waterman, H. I.
- De Kolosovski, N. A., molecular specific heats of liquids, A., 1006. Thermodynamical theory of liquids, A., 1006.
- and Grischkun, E. V., integral heats of solution. XIII., A., 352.
- De Kromme, L., and Groeneveldt, J. R. de B., occurrence of heterophyl antigen, A., 852.
- Delabre, J. See Herlemont, H.
- Delaby, R., and Bréugnot, V., rapid determination of acetyl value of fats, B., 314.
- Charonnat, R., and Janot, M. M., radioactivity of springs on the Ballon d'Alsace, A., 251.
- and Guillot-Allègre, (Mme.) S.,  $\alpha\beta$ -ethylenic straight-chain aldehydes, A., 808.
- De Lacy, S. A., effect of storage on plasticity of paints, B., 676.
- De La Hitte. See Louis.
- Delaney, M. E. See Hanson, E. R.
- De Lange, A. J., and Flintkote Corp., bituminous cement mortar, cement concrete, etc., (P.), B., 789.
- De Langhe, J. E., theory of ideal colour sensitivity of photographic emulsions, A., 791.
- De Laporte, A. V., taste and odour control in water supplies, B., 606.
- De Lapparent, J., bauxites containing diaspore, A., 253. Emery [rocks] of Greece and bauxites, A., 928.
- De la Rivière, R. D., and Kossowitch, N., red cells and immunity, A., 1084.
- De La Roche, H. R. S., refractory covering of iron and metal structures, (P.), B., 712.
- De La Rüe, E. A., mineral deposits of St. Pierre and Miquelon, A., 251.
- De Laszlo, H., electron diffraction by vapours, A., 658. Copper to glass seals, A., 1135.
- De La Torre, J., and De La Torre, L. R., filtering, (P.), B., 945.
- De La Torre, L. R. See De La Torre, J.
- De La Torre e Hijo, J. See under De La Torre, J.
- Delattre-Seguy, J. See under Seguy, J. D.
- Delaunay, B., new representation of geometrical crystallography. I., A., 213, 65.
- Delauney, P., properties of *d*- $\beta$ -5-chloro-, -5-bromo-, and -5-iodo-salicylglucosides, A., 938.
- Delauney-Auvrey, (Mme.) S. See Bertrand, G.
- De Laval Separator Co. See Cleary, W. D., Dietrich, M. A., Lindgren, H. O., Scott, W. A., and Strezynski, G. J.
- De la Vallée Poussin, origin of gold at Kivu, A., 588.
- Delaygue, A., arrangement of valency electrons in the nitrogen atom; rotatory power of unsymmetrical tertiary amines, A., 449.
- Delbano, A. See Brönsted, J. N.
- Delbart, G., and Lecœuvre, E., low-carbon cast irons, B., 149. Cupola cast irons with low and very low carbon content, B., 868.
- Del Boca, M. C., electrolysis of metal salts in liquid ammonia (Faraday's law), A., 681.
- Del Campo, A., and Sierra, F., acidimetry of orthotungstates, using methyl-red, A., 1025.
- Delco-Remy Corporation. See Seabury, R. L.
- Delcourt-Bernard, E., effect of iodine on basal metabolism in exophthalmic goitre, A., 526. Experimental fever in man. II. Energy exchange in fever: thermogenesis and metabolism, A., 1190.
- Deleau, N. T., application of the biometric method to the investigation of the rôle of mineral matter in the life of plants, A., 545.
- and Dick, J., carotene. I. Preparation, detection, determination, A., 485.
- Delektorskaja, N. See Magidson, O. Y.
- De Lessens, F., photographic dichromate colloid processes, (P.), B., 173.
- De Lestrangé, (Mme.) Y. See Fournéau, E.
- Delfosse, L., washing of wool in the yolk, (P.), B., 1050.
- Del Fresno, C., and Mairlot, E., potentiometric determinations in alkaline solution; determination of chromate and simultaneous determination of chromate and ferri-cyanide, A., 800. Simultaneous potentiometric determination of ferri-cyanide and chromate in alkaline solution by means of vanadous sulphate, A., 924. Potentiometric determination of gold in alkaline solutions with vanadyl sulphate, A., 1134.
- Dells, E. See Holmes, H. N.
- De Liefde, J. H. See Jorissen, W. P.
- Deligiannis, T. See Rosenmund, K. W.
- Delire, A. See Bezsonoff, N.
- Dell, E., influence of tar content of brown-coal briquettes on yield of town's gas obtainable therefrom by high-temperature carbonisation, B., 531.
- Dell'Acqua, G., exchanges between blood and tissues. VII. Sugar and sodium chloride in capillary and venous blood after administration of sodium chloride, sugar, salyrgan, and insulin, A., 1328.
- Del Mundo, S. See Eckert, Fritz.
- Delomenie, H., ferrosilicons, A., 896. Evolution of gases from ferrosilicon in presence of water, A., 1259.
- De Long, W. A., variability of amount and composition of the ash of the Wagener apple under Nova Scotian conditions, A., 874.
- De Loureiro, J. A. See Wurmser, R.
- Delph, A. E. See Boulton, J.
- Deltex Co. See Chapin, E. S.
- Del-Turco, C. R., preparation of esters of high viscosity from castor oil, (P.), B., 156.
- Del Villar, I. See Sayago, G.
- Delwaulle, (Mlle.) L. See François, F.
- Delwig, C. von. See Johnson, A. A.
- Demag Akt.-Ges., smelting of iron ores having a high sulphur content, (P.), B., 792.
- De Malleman, R., and Gabiano, P., magnetic rotatory power of gaseous chlorine and hydrochloric acid, A., 211.
- Demanche, L. See Bovet, D.
- Demandt, E., field experiments [with sugar cane] in Java, 1932, B., 884. Fertiliser experiments [with sugar cane] in Java, 1932, B., 884.
- Demanez, M. L., constitution of casein, A., 1178. Specificity of caseinogens, A., 1186.
- Demann, W., extraction of bituminous coal-tar pitches, B., 417.
- Demassieux, (Mme.) N., [artificial] production of laurionite, and lead oxybromide, A., 795.
- Dember, H. See Barth, G.
- Dembo, L. H. See Rittinger, F. R.
- De Mello, J. B., and Taveira, M., bromatological chemistry [analysis] of beer, B., 166.
- Demeter, K. J., Sauer, F., and Miller, M., comparison of methods of determining *B. coli* in milk, B., 730.
- De Meurion, G. See Karrer, P.
- Demidenko, T., functional relations between phosphorus compounds and organic acids in plants, A., 874.
- Deming, W. E. See Hendricks, S. B.
- De Mingo, M. See Fernández, O.
- Demmel, M., comparative determinations of blood-sugar of the ox, A., 966. Protein content of normal and pathological serum in cattle, A., 1073. See also Frei, W.
- Demmer, A. See Hertel, E.
- Demmler, F. P., physiology of *Clado-sporium*, A., 536.
- Demole, V., vitamin-C and ascorbic acid, A., 756.
- Demolis, A. See Paillard, H.
- Demolon, A., and Bastisse, E., influence of the anion on flocculation of colloidal clay by potassium salts, A., 24. Fixation of silica by colloidal clay, B., 932.
- De Monchy, M. M., nitro-derivatives of methylaniline, A., 1284.
- De Montigny, R., penetration in sulphite-[pulp] cooking, B., 299.
- Demortier, G., apparatus for measuring  $\mu$ , A., 925.
- Demougin, P., absorption of gases and vapours by active carbon and silica gel, A., 221. Solubility of cellulose nitrates, B., 355. Muzzle-flash suppression, B., 573.
- Dempster, Ltd., R. & J., and Sheeran, A. J., tubular heat exchangers, particularly preheaters for gas purifiers, (P.), B., 448.

- Demyanenko, V., poisoning of fish by waste waters from chemical factories and the "fish test," B., 814.
- De Nagy, D., carbonisation of solid combustibles by internal heating, (P.), B., 180.
- Denbigh, K. G., and Whytlaw-Gray, R., higher homologues of sulphur hexafluoride, A., 684.
- Dénes, A., absorption of light by globin-hæmochromogen and its use for determination of blood-pigment, A., 174.
- Dengler, F. P., and Brown, L. M., extraction of oil from vegetable material, (P.), B., 76. Treating chocolate liquor containing proteins, starches, and fats, (P.), B., 811.
- Denham, W. S., and Allen, A. L., "regain" of silk of different origins, B., 298. and Dickinson, E., swelling of silk, A., 227. and Lonsdale, T., tensile properties of silk filaments, B., 299.
- Denig, F., and Koppers Co., [hydrocarbon] oil distillation, (P.), B., 139. See also Koppers Co. of Delaware.
- Denigès, G., characterisation of chemical species by their catalytic properties; silver, A., 137. Rapid determination of phenol in urine, A., 179. Cholesterol as a microchemical reagent for fatty acids, A., 696. Action of iodine on sea-water, A., 1028. Colorimetric determination of acetylsalicylic acid, A., 1179. Microchemistry of "fantan" (phenyleinchon-oylurethane), B., 171. Detection and determination of nickel in commercial cobalt salts by means of formaldoxime, B., 963. Chemical and micro-analysis of sulphonanilides, B., 1035.
- Denina, E., equations for the application of the law of homogeneous chemical equilibrium, A., 351. Measurement of electrolytic conductivities at high frequencies, without electrodes, A., 1265.
- Denis-Nathan, L., cryoscopy of South African milk, B., 843.
- Denisevich, V. P., and Fyurst, L. Y., crude-oil distillation curves, B., 210.
- Denison, G. H. See Kemp, J. D.
- Denison, I. A., determining total acidity of soils, B., 643.
- Denisov, F. I., milk of cows inoculated with anthrax serum, A., 1186. Comparison of feeding values of rape cake and linseed cake, B., 938.
- Kopuirin, V. I., Kormtshikov, P. A., and Larin, I. V., *Artemisia sieversiana* silage and its feeding value, B., 844.
- Deniyelle, L. See Battagay, M.
- Denner, H. See Meisenheimer, J.
- Dennett, I. H., Malayan soils. II. Classification and properties, A., 1138. Reaction of padi [rice] soils, B., 34.
- Denney, C. F., and Foster Wheeler Corp., oil-fractionating [apparatus], (P.), B., 854.
- Denning, P. S., and Schundler, F. E., colouring granular and other material, (P.), B., 629.
- Dennis, L. M., and Rochow, E. G., oxy-acids of fluorine. II., A., 797. See also Webster, S. H.
- Dennison, D. M., and Wright, N., new long-wave absorption band of carbon disulphide, A., 445. See also Adel, A., Gerhard, S. L., and Hardy, J. D.
- Dennison, M. See Korenchevsky, V.
- Denny, F. E., oxygen requirements of *Neurospora sitophila* for formation of perithecia and growth of mycelium, A., 428. Eliminating the use of calcium carbonate in preparing plant tissue for analysis, A., 546. Bases for calculations in measuring changes in leaves during the night, A., 873. Changes in leaves during the period preceding frost, A., 1214. Effect of ethylene chlorohydrin vapour on chemical composition of gladiolus corms, A., 1215. Effect of potassium thiocyanate and ethylene chlorohydrin on amylase activity, A., 1215. and Miller, L. P., effect of ethylene chlorohydrin vapours on dormant lilac tissues, A., 197.
- Denny, P. W. See Imperial Chem. Industries.
- De Nooij, J. C., and Gerritsen, D. J., preparation of cellulose solutions, and production of artificial threads, films, bands, and such-like artificial products therefrom, (P.), B., 781.
- De Nora, O., automatic rotatory apparatus for continuous production of chloride of lime, B., 546.
- Densmore, E. L., maraschino-type cherry preparation, B., 650.
- Denstedt, O. F., and Brocklesby, H. N., fish oils in paint and varnish production, B., 836.
- Dent, F. J., Blackburn, W. H., Williams, N. H., Parrish, E., and Kelly, A. R., test of intermittent vertical chambers at Croydon, B., 133. Back-run process for manufacture of carburetted water-gas. II., B., 133. See also Wood, J. W.
- Dent, H. M., and Gen. Plastics, Ltd., phenolic condensation products, (P.), B., 756.
- Dent, K. W., toxic action. V. Toxicity of aliphatic aldehydes towards potato tuber, A., 106.
- Denton, A. B. See Activated Sludge, Ltd.
- Denton, M. C., Gordon, Beulah, and Sperry, R., tenderness in pastries made from flours of varying strengths, B., 442.
- Denys, G., rôle of salicylic acid in fermentation, B., 203. Fermentation of sugarcane products [in Paraguay], B., 729.
- Denzler, C., effect of ozone on drying of linseed oil, B., 718. See also Briner, E.
- Denzler, W., [intaglio] printing inks and their use, (P.), B., 879.
- De Oliveira, E., gold deposits of Morro Velho, Minas Geraes, Brazil, A., 1268.
- De Ong, E. R., fungicidal value of pinetar oil and copper resinate, B., 119.
- Deotto, R., antiscorbutic property of suprarenal cortex, A., 987.
- De Paolini, F. S., and De Paolini, I., action of magnesium alkyl halides on hydroxylamine and on its acyl derivatives, A., 263.
- De Paolini, I., mechanism of reaction between hydroxamic acids and bromine, A., 272. and Gorla, C., complex salts of 1:2:4-triazole. II., A., 286. and Ribet, G., behaviour of benzoyl peroxide towards amino-compounds, A., 292. See also De Paolini, F. S.
- De Pauw, P. F. M., determination of nitrogen in fertilisers, B., 36.
- Depew, H. A., zinc oxide in rubber. I.—III., B., 480, 557.
- Deplanche, A., carbon or similar paper, (P.), B., 665.
- Deplanque, R. See Ohle, H.
- De Ponte, G. See Semerano, G.
- Deppe, M. See Windaus, A.
- Deppe, W. P. See Musso, A.
- Derankova, E. See Schmidt, A. A.
- Derbigny, I. A. See Sherman, H. C.
- Derby, I. H., Cunningham, O. D., and Reilly, P. C., ore flotation, (P.), B., 553. and Reilly, P. C., retort, (P.), B., 527. Induction process of graphitising carbon, (P.), B., 693.
- Derby Cables, Ltd., and Johnston, R., insulating compound particularly for use with electric cables, (P.), B., 926.
- De Rege, F. See Borasio, L.
- Derevici, H. See Parhon, C. I.
- Deright, R. E., solubility of silver in mercury. II., A., 562.
- Dering, H. O., Kelly, M. D., and Superfine Chemicals, Ltd., hexamethylenetetramine, (P.), B., 906.
- Derjagoin, B., elastic properties of foams, A., 777. Determination of viscosity coefficients of viscous liquids, and application of Le Chatelier's formula, B., 1076. and Volarovitch, M., viscosity of disperse systems of different plasticity, A., 901.
- Derkzen, J. C., crystallisation and setting of gelatin jellies, A., 125. See also Katz, J. R.
- De Rohan, M. P. See Kaufhold, R.
- De Rohden, C., and Krebs Pigment & Color Corp., titanium pigments, (P.), B., 799.
- De Rooy, A. See Katz, J. R.
- Derow, M. A. See Hooker, S. B.
- Derr, R. B., and Aluminum Co. of America, recovery of [aluminium] metal from coated metal foils, (P.), B., 511, 593. Treatment of water, (P.), B., 529. See also Barnitt, J. B.
- Derrett-Smith, D. A., and Nodder, C. R., behaviour in chemicking of materials dyed with some vat and insoluble azo-dyes, B., 58.
- Derry, G. C., and Sturtevant Co., B. F., heat-exchange apparatus, (P.), B., 896.
- Dervichan, D. G., adsorption layers at the surface of solutions, A., 1009. See also Marcelin, A.
- Desai, B. G. See Niyogi, S. P.
- Desai, B. L. See Dastur, R. H.
- Desai, B. N., critical potential characteristic of coagulation of a colloid, A., 124. Behaviour of colloids towards electrolytes and non-electrolytes with progress of dialysis, A., 777. and Nabar, G. M., influence of acidity on solubility of silver chromate in gelatin solution, A., 125. Nabar, G. M., and Barve, P. M., relation between charge and stability of colloidal solutions of gold and ferric hydroxide dialysed to different extents, A., 124.
- Desai, M. S., absorption spectra of alkali fluorides and heat of dissociation of fluorine, A., 111. Action of light on rubidium iodide vapour, A., 1102.
- Desai, R. D., alkylcyclopentanones. III. Synthesis of 3'-methylcyclopentanepiropcyclohexane-3:5-dione, A., 1052. See also Chowdhury, M. R.



- De Saint-Aunay, R. V., polymerisation and rupture of hydrocarbons under the influence of electric discharge, A., 604.
- De Salas, E. See García Banús, A.
- Desalbres, M., turpentine oil, B., 354.
- De Salvo, G., oil-decolourising carths and their regeneration, B., 1017.
- Desamais, L. M. See Benson, W. J.
- Desamari, K., and Winthrop Chem. Co., alkylquinolylamino-phenylcarboxylic [-benzoic] acids, (P.), B., 219.
- Desch, C. H., age-hardening of alloys, B., 673.
- De Schepper, A. J. A. Y., obtaining rubber in granular form from dispersions such as latex, or from solutions, (P.), B., 597.
- De Senarclens, G. See Schmid, A.
- Deshusses, J. See Deshusses, L. A.
- Deshusses, L. A., and Deshusses, J., salts of guanylcarbamide and diguanidine, A., 815.
- De Sigmond, A. A. J., principles and scheme of a general soil system, A., 693.
- De Simó, M., and Shell Development Co., hydrogen and carbon monoxide [e.g., from methane], (P.), B., 1000.
- See also Bataafsche Petroleum Maats.
- Desirant, Y., nitration of *p*-fluorotoluene, A., 600.
- Des Ligneris, M. J. A., alleged cancer-producing qualities of tomatoes, A., 1189.
- Desmaroux, J., rise of temperature in tubes [for testing explosives] at 110°, B., 253. Ballistics of rifle powders, B., 573. Stability of cellulose nitrates: distinction between decomposition due to internal combustion and that due to hydrolysis, B., 697.
- De Smet, P. See Fonteyne, R.
- Desnuelles, P. See Fromageot, C.
- Desodt. See Paget, M.
- Despande, A. R. R. See Samuel, R.
- Despot, E. W., cigarette, (P.), B., 685.
- D'Este, G., gasometric determinations by means of the ureometer. III. and IV., A., 42, 1218.
- Desvergnès, L., trimethylenetrinitroamine or "hexogene", A., 150. Pentaerythritol tetranitrate (or penthrilo), B., 733.
- De Sweemer, A., solubility isotherms of complex inorganic thiocyanates. I. II. System sodium thiocyanate-cobalt thiocyanate-water, in relation to julenite, A., 28, 220. Cobalt thiocyanate as a microchemical reagent for mercury, A., 138.
- De Terra, H., insolation hypothesis of rock weathering, A., 1267.
- De Tomasi, J. A. See Sharp, P. F.
- Detroit Club, gloss measurement, B., 1018.
- Detroit Electric Furnace Co., melting of finely-divided scrap metal of the nature of borings and turnings, (P.), B., 1016\*.
- See also Crosby, E. L.
- De Turk, E. E., Holbert, J. R., and Hawk, B. W., chemical transformations of phosphorus in the growing maize plant with results on two first-generation crosses, A., 545.
- See also Bray, R. H.
- De Turk, H. L. See Bingham, E. C.
- Detwiler, E. B., and Willard, M. L., metallic salts of  $\beta$ -naphthylamine and its hydrochloride, A., 153.
- Deuel, H. J., jun., MacKay, E. M., Jewel, P. W., Gulick, M., and Grunewald, C. F., ketosis. III. Comparative glycogen formation and retention after administration of glucose, galactose, and lactose, A., 855.
- See also Butts, J. S.
- Deullin. See Boisselet.
- Deulofen, V., mol. wt. of *l*-erythrose, A., 147. Rule for rotatory direction of acetylated aldononitriles, A., 494.
- and Bavio, J. E., determination of cholesterol in bile and duodenal fluid, A., 1068.
- and Mendivelzua, G., amino-acids. IV. Dihydroxyphenylalanine and related amino-acids, A., 1159.
- Wolf from, M. L., Cattaneo, P., Christman, C. C., and Georges, L. W., acetylation of galactoscoixime, A., 1038.
- Deuticke, H. J., effect of adenosinephosphoric acids on dehydrogenation processes by vegetable and animal enzymes. II., A., 748.
- See also Embden, G.
- Deutsch, A. See Kuhn, R.
- Deutsch, E. See Elton, N. W.
- Deutsch, W., density distribution of unipolar ion currents, A., 444.
- Deutsch-Atlantische Telegraphenges. See Smith, W. S.
- Deutschheim, O., spectrum of chromium in crystals, A., 5.
- See also Tomaschek, R.
- Deutsche Bekleidungsindustrie G.m.b.H., artificial threads and fibres, (P.), B., 103.
- Deuts. Edelstahlwerke Akt.-Ges., and Siemens & Halske A.-G., hard metal [alloy containing titanium carbide], (P.), B., 70.
- See also Pölzger, F.
- Deuts. Gasglühlicht-Auer Ges.m.b.H., decolorisation of glass, (P.), B., 268.
- Plastic substances, (P.), B., 436.
- Deuts. Glühfadenfabrik R. Kurtz & P. Schwarzkopf G.m.b.H. See Löwit, R.
- Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler, higher alcohols [from ethyl alcohol], (P.), B., 11. Cementation of iron and steel and their alloys, (P.), B., 68. Treatment of precious metal-containing materials, (P.), B., 70.
- Mesityl oxide and its homologues from acetone and its homologues, (P.), B., 183. Preparation of beryllium compounds, (P.), B., 189. Removal of free chlorine from chlorine-containing materials and production of chlorine-removing material therefor, (P.), B., 189. Grinding or abrading bodies, (P.), B., 190. Destructive hydrogenation, cracking, and similar heat treatment of carbonaceous materials, (P.), B., 376, 454. Catalytic hydrogenation of carbonaceous materials, (P.), B., 454. Anhydrous ethyl alcohol, (P.), B., 740. Water-free ethyl alcohol, (P.), B., 776. Soaps having a disinfecting action, (P.), B., 798. [Ethyl] alcohol free from fusel oil, (P.), B., 1031. Production of anhydrous ethyl alcohol directly from mash, etc., (P.), B., 1031.
- Walter, H., and Schulz, Hermann, anhydrides of volatile fatty acids [acetic anhydride], (P.), B., 661.
- See also Bromig, K., Klopfer, H., Leichtbaustoff-Ges.m.b.H., and Róka, K.
- Deuts. Houghton Fabr. G.m.b.H., and Hanusch, H., cementation of steel and iron, (P.), B., 234.
- Deuts. Hydrrierwerke Akt.-Ges., liquid soaps, (P.), B., 28. Plastic masses, varnishes, putty masses, etc., (P.), B., 317. Dithiocarbamates, (P.), B., 341. Fatty substances miscible with water, (P.), B., 354. [Alkoxyalkyl halides and of] products [therefrom] suitable for use as washing, wetting, emulsifying, dispersing, peptising, foaming, cleansing, and similar agents, (P.), B., 617. Softening, plasticising, and similar agents and processes, (P.), B., 662. Manufacture and use of wetting-out, equalising, peptising, and cleaning agents, (P.), B., 777. Products suitable for use as washing, wetting, emulsifying, dispersing, peptising, foaming, cleansing, etc., agents, (P.), B., 823. Dyes [having soap-like properties], (P.), B., 823, 858. Reduction of fats, oils, waxes, fatty acids, etc. [to alcohols], (P.), B., 836. Varnishes, lacquers, or putty masses, (P.), B., 879. [Sulphonated] derivatives of unsaturated fatty alcohols [wetting and cleansing agents], (P.), B., 955.
- De Vaney, G. M. See Munsell, H. E.
- Devauz, H., wettability of insoluble substances and power of attraction at interface of immiscible liquids, A., 900.
- De Verdier, B. H. O., connecting soda-melting furnaces to a rotating furnace, B., 128.
- Devereux, E. D., and Etchells, J. L., yeast extract medium for determining the bacterial content of milk by the plate method, A., 969.
- Devers, P. K. See Brit. Thomson-Houston Co.
- De Villiers, O. d'H., maximum [sugar] boiling-house recovery in connexion with equipment and process, B., 87.
- De Vilmorin, J., and Cazaubon, E., baking value of wheats and the Chopin extensimeter, B., 842.
- De Vito, G., rapid detection of triacetin in butter by means of a sensitive reaction for acetic acid, B., 522.
- See also Parisi, E.
- Devoto, G., dielectric constant of liquids. VIII. and IX. X. Aqueous solutions of aminobenzoic acids. XI. Electric moment of substituted amides and carbamides, A., 447, 555, 777, 1230.
- and Ratti, A., influence of organic substances on deposition of metallic ions at dropping mercury cathode, A., 355.
- De Vriend, J. A. See Liempt, J. A. M. van.
- De Vries, A., and Pulster, G. J., variability of need of vitamin-B complex, A., 646.
- De Vries, C. L. See Schreinemakers, F. A. H.
- De Waard, S., and Beek, F. van, determination of water in solid fuels, B., 5.
- De Walden, S., triboluminescence in mercury vapour, A., 337.
- De Wesselow, O. L. V. S., and Griffiths, W. J., blood-guanidine in hypertension, A., 303.
- Dewey, C. S., and Nat. Aniline & Chem. Co., trisazo-dyes, (P.), B., 222. Tetra-kisazo-dyes, (P.), B., 222.
- Dewey, P. H., adsorption of oxalic acid by alumina, A., 121.



- Dewey & Almy Chemical Co. See Carey, C. A., Neiley, S. B., and Westcott, W. B.
- Dewey & Almy, Ltd., soda-lime, (P.), B., 588. Manufacture of rubber-bonded asbestos products, and products containing rubber-bonded fibres which normally coagulate rubber latex, (P.), B., 1070.
- Dewhurst, M. E. R., and Glasspool, V. M., [rose water-sugar] toilet [lotion] or cosmetic preparations, (P.), B., 44.
- De Wildeman, E., floridosido of *Lemanea*, A., 877.
- De Wisniewski, F. J., corpuscular mechanics, A., 444.
- De Wolf, H. H. See Verkade, P. E.
- Dexter, S. T., decreasing hardness of winter wheat in relation to photosynthesis defoliation and winter injury, B., 643.
- Dey, B. B., and Doraiswami, Y. G., reactivity of the chlorine atom in the benzene nucleus, A., 1044. Hydrolysis of 2-chloro-, -ethoxy-, and -methoxy-5-nitrobenzonitriles, A., 1049.
- and Sitharaman, M. V., peroxidases. II. Influence of concentration of substrate (quinol), hydrogen peroxide, and other factors on activity of peroxidase of *Chow Chow* (*Sechium edule*), A., 313.
- Deyrup, A. J. See Hammett, L. P.
- Dezani, S., and Borsalino-Semeria, A. M., *Digitalis lanata*, Ehrh., cultivated in Piedmont, B., 1035.
- Dhar, N. R., formation of hydroxyl radical from photolysis of water and generation of formaldehyde, A., 1255.
- and Bhargava, L. N., formation of formaldehyde and reducing sugars from organic substances in light, A., 808.
- Bhattacharya, A. K., and Biswas, N. N., phototransformation in soil, B., 482.
- Bhattacharya, A. K., and Mukerji, B. L., kinetics of the iodine-oxalate reaction, A., 678.
- and Mitra, R. N., physical properties of concentrated hydroxide sols, A., 224.
- and Ram, A., photosynthesis in tropical sunlight. VI. Presence of formaldehyde in rain-water, A., 577. Formaldehyde in dew, A., 690. Formaldehyde in terrestrial and solar atmospheres, A., 802. Variation in amounts of ammoniacal and nitric nitrogen in rain water of different countries and origin of nitric nitrogen in the atmosphere, A., 802. Presence of formaldehyde in rain and dew and its formation by photo-oxidation of organic compounds and problem of carbon assimilation, A., 1136.
- and Rao, G. G., nitrification in soil and in atmosphere; a photochemical process, B., 725.
- See also Ahobalacharya, C., Bhargava, L. N., Bhattacharya, A. K., Ghosh, Satyeshwar, and Sharma, R. D.
- Dhein, A. See Remy, T.
- Dhére, C., tegumentary porphyrin of *Lumbricus terrestris*, A., 298.
- Dhingra, D. R., fatty acids and glycerides of milk-fats of Indian goats and sheep, A., 848.
- Seth, G. L., and Speers, P. C., seed fats of *Bassia latifolia* and *Garcinia morella*, B., 513.
- Diakow, M. J., digestibility, metabolism, and energy exchange in hens as a basis for rational feeding, A., 743.
- Diamond, C. See Courtaulds, Ltd.
- Diamond, G. S., Terecod—a new refractory brick for electric furnaces, B., 749.
- Diamond, H. See Taylor, H. S.
- Diamond Match Co. See Cruser, F. V. D.
- Diamond Power Specialty Corporation. See Brelsford, H. E.
- Di Benedetto, Elena, electrodialysis of the electrolytes of blood-serum, A., 1065. See also Houssay, B. A., and Rossignoli, J.
- Di Benedetto, En., viscosity and protein equilibrium in human hyperthyroidism, A., 854. See also Rossignoli, J.
- Diblicek, B., and Kucera, C., blood picture of guinea-pigs during scurvy and recovery, A., 1192.
- Di Capua, A., action of iron on formation of kojic acid by means of *Aspergillus flavus*, A., 983. See also Quilico, A.
- Dick, (Miss) E. M. See Algar, J.
- Dick, G. F. See Williams, J. L.
- Dick, J., gravimetric determination of arsenic as  $MgNH_4AsO_4 \cdot 6H_2O$ , A., 1023. See also Deleano, N. T.
- Dick, J. B., chromium-plating in calico-printing, B., 545.
- Dick, J. H. See Davies, W.
- Dick, L. C., determination of an alkaloid or total alkaloids in coated or uncoated tablets, B., 412. Gasometric analysis of sodium nitrite in coated tablets, in the presence of a bicarbonate and nitrate, B., 651.
- Dick Co., A. B. See Davis, A. B.
- Dickens, F., iodoacetic acid, glutathione, and tissue glyoxalase, A., 314. Interaction of halogenoacetates and thiol compounds; reaction of halogenoacetic acids with glutathione and cysteine; mechanism of iodoacetate poisoning of glyoxalase, A., 1039.
- and Greville, G. D., constant-volume differential manometer, A., 481. Metabolism of normal and tumour tissue. VIII. Respiration in fructose and in sugar-free media. IX. Ammonia and urea formation. X. Effects of lactate, pyruvate, and deprivation of substrate. XI. Measurement of respiratory quotient, respiration, and glycolysis, A., 851, 1070, 1324.
- Dickens, P., and Brennecke, R., potentiometric determination of molybdenum in steel, B., 510. Potentiometric analysis in ironworks laboratories. V. Determination of molybdenum, B., 870.
- and Thanheiser, G., potentiometric determination of iron and vanadium in ferrovanadium, and of iron and chromium in ferrochromium, B., 430.
- Dickenson, J. H. S., and Hatfield, W. H., influence of beryllium on steel, B., 919.
- Dickey, C. B. See Raleigh, W. P.
- Dickey, J. B. See Gilman, H., and Hartman, W. W.
- Dickhart, W. H., bleaching of palm oil with benzoyl peroxide, B., 878.
- Dickie, H. A., embrittlement of steel at high steam temperatures, B., 790.
- Dickie, L. F. N. See Thompson, W. O.
- Dickie, W. A. See Brit. Celanese.
- Dickin, J. H. See Field, A. J.
- Dickins, A. W. M., methyl-*p*-aminophenol sulphate (metol), (P.), B., 54.
- Dickinson, B. N. See Hoard, J. L.
- Dickinson, C. G. See Bull, L. B.
- Dickinson, E. See Denham, W. S.
- Dickinson, E. A., and Gray Processes Corp., petroleum refining, (P.), B., 138.
- Dickinson, R. G. See Leermakers, J. A., and McMorris, J.
- Dickinson, S. See Platt, B. S.
- Dickman, A. See Nagy, L.
- Diekmann, H. See Hesse, E.
- Dickson, D. See Keeton, R. W.
- Dickson, J. G. See Leukel, R. W.
- Dickson, M. A. See Potter, M. T.
- Dickson, V. L., breaking down of metals [lead], (P.), B., 592.
- Diebold, W. See Klenk, E.
- Diederichs, P. O., and Amer. Machine & Foundry Co., roller mill, (P.), B., 816.
- Diefenbach, O. L., effect of anterior pituitary sexual hormone and thyrotropic active substance on respiratory metabolism, A., 1337.
- Diehl, R. See Thiel, A.
- Diehm, R. A., utilisation of various hemicelluloses as sources of energy for nitrogen-fixing bacteria, A., 96.
- Dieke, G. H., and Mauchly, J. W., structure of the third positive group of CO bands, A., 207.
- Diels, O., [polyterpenes and polyterpenoids. XXIX.]. Dehydrogenation of cholesterol and cholic acid, A., 606. Dehydrogenation of cholesterol, A., 1047.
- and Alder, K. [with Friedrichsen, W., Klare, Winkler, H., and Schrum], syntheses in the hydroaromatic series. XVIII. "Diene" syntheses with heterocyclic nitrogen compounds. VI. "Diene" syntheses of pyridine, quinoline, indolizine, norlupinane, and  $\psi$ -lupinine, A., 1058.
- Diem, E., variations in dry matter of blood and their relationship to constitution and production in Hohenfleck cattle, A., 1316.
- Diemair, W., detection of phosphatides, A., 1180. See also Bleyer, B.
- Dienske, J. W. See Sjollem, B.
- Dienst, W. See Berl, E.
- Dienschlag, E., and Buchholz, F. K., apparatus for measuring viscosity of open-hearth slags, B., 709.
- and Schürmann, H., removal of phosphorus from iron by oxidation, B., 271.
- Zillgen, M., and Poetter, H., evaluation of iron ores for the blast furnace, B., 192.
- Dierichs, A. See L. G. Farbenind.
- Dierks, K., and Becker, M., contents of parovarian cysts, A., 1192.
- Dieryck, J. See Chargaft, E.
- Diescher, S. E., and Diescher & Sons, S., tinplate, (P.), B., 153.
- Diescher & Sons, S. See Diescher, S. E.
- Diétel, F. G., melanophore hormone. I., A., 869. Presence of carotene in the frog, A., 1183.
- Dieterle, H., and Kaiser, P., contents of the rhizomes of *Curcuma domestica* (Temoe Lawak). II., A., 876.
- Leonhardt, H., and Dörner, K., sterols of the bark of *Lophopetalum toxicum*. I., A., 651.
- and Salomon, A. [with Coester, C., Wilcke, A., and Daum, W.], lupeol. II., A., 162.
- Salomon, A., and Rosenfelder, W.,  $\alpha$ -amyrin. II., A., 509.

- Dieterle, H., and Schaffnit, K., solanthrane, an auxiliary alkaloid from potato sprouts, A., 171.
- Dieterle, W., Dürr, H., and Zeh, W., advances in the field of sensitizers for [photography of] the far red and infra-red in Germany since the year 1918, B., 1085.
- Dietrich, H. See Bauer, K. H.
- Dietrich, K. R., ethyl alcohol as motor fuel, B., 901.
- and Lohrengel, W., air content of ethyl alcohol, B., 1077.
- See also Fritzweiler, R.
- Dietrich, M. A., and De Laval Separator Co., refining of mineral oil, (P.), B., 696.
- Dietrich, S., and Zeyen, M., resynthesis of lactic acid in man, A., 419.
- Dietrichson, G., Bircher, L. J., and O'Brien, J. J., normal density of ammonia, A., 218.
- Orleman, C. W., and Rubin, C., density of ammonia at reduced pressures and its relation to the at. wt. of nitrogen, the gas constant, R, and the limiting molal volume,  $V_0$ , A., 218.
- Dietz, E. M. See Conant, J. B.
- Dietz, H. F. See Alvord, E. B.
- Dietz, H. J. See Sheppard, S. E.
- Dietz, V., and Multigraph Co., planographic printing process, (P.), B., 755.
- Dietzel, R., and Saxholm, K., purity of laboratory medicants. II. Standards, B., 845.
- and Steeger, O., decomposition of alkaloids in aqueous solution, particularly during sterilisation. VI., Ecgonine, B., 524.
- Dietzler, A. J., and Nelson, R. E., reactions between citric and acetylsalicylic acids, A., 594.
- Di Frisco, S. See Lombroso, U.
- Digges, T. G., effect of lathe cutting conditions on hardness of carbon and alloy steels, B., 271.
- Diggin, M. B. See Hogaboom, G. B.
- Diggs, S. H., McGee, J. M., Cooke, T. S., and Standard Oil Co., treatment [purification] of hydrocarbon oils, (P.), B., 295.
- and Standard Oil Co., lubricating oils, (P.), B., 499.
- See also Page, J. M., jun.
- Di Gléria, J., and Kotzmann, L., determination of unsaturation of soils by ammonia absorption, B., 321.
- D'Ignazio, C., Montani, L. G., and Sotgiu, G., comparison of the most important duodenal enzymes, A., 854.
- Dijatschkovski, S. I., Ustinskaja, V., and Mitropolski, electrocapillary method of quantitative analysis, A., 1263.
- Dijk, W. J. D. van, new extraction method, B., 415.
- Dijk, H. van. See Keesom, W. H.
- Dijkstra, N. D. See Backer, H. J.
- Dike, T. W., and Laucks, Inc., I. F., gluing materials together [in manufacture of plywood], (P.), B., 229.
- Dikova, M. G. See Brodski, A. I.
- Dilbek, L. G. See Vasserman, M. S.
- Dill, D. B., Jones, B. F., Edwards, H. T., and Oberg, S. A., salt economy in extreme dry heat, A., 743.
- See also Bock, A. V.
- Dill & Collins Co. See Schwalbe, H. C.
- Diller, H., new pastry adulterants and their detection, B., 329.
- Dillmann, L. M. See Reed, C. I.
- Dillon, R. T. See Van Slyke, D. D.
- Dils, L. A., and Kellogg Dils, Inc., treating fibres for papermaking and woody materials to obtain fibres therefrom, (P.), B., 585.
- Treating [de-inking] printed paper for use as papermaking stock, (P.), B., 622.
- Rendering paper moisture-, grease-, and acid-proof and solution therefor, (P.), B., 665.
- Dillthey, W., heteropolarity. XXII. Constitution and colour, A., 710.
- [with Harenberg, F.], heteropolarity. XIX. Phenoxy-, phenylthiol-, and phenylseleno-groups as auxochromes in triphenylcarbenium salts, A., 391.
- and Escherich, G., heteropolarity. XXI.  $NN'$ -Diphenyl-*p*-phenylenediamine and triphenylmethyl chloride, A., 705.
- and Höschen, W., pyrylium salts. XX. Oxidation of pyrenium salts. XXI. Diflavylene oxides, A., 955, 1303.
- and Schommer, W., heteropolarity. XX. Colour of arylated cyclopentadienones, A., 506.
- Dima, M. See Otin, C.
- Dimakov, S. See Petrov, G.
- Dimitrieva, E. F. See Sushko, S. Y.
- Dimitriu, M. See Casimir, E.
- Dimotte, N. See Vlădescu, T.
- Dimroth, O., relations between affinity and reaction velocity, A., 1123.
- Dinamite Nobel Società Anonima Italiana, trimethylenenitroamine, (P.), B., 446.
- Dines, H. G., clays of south-east England, B., 307.
- Dingemans, J. J. J., colorimetric determination of glycerin in glycerin soap, B., 75.
- Wine vinegar, fermentation vinegar, and white vinegar, B., 648.
- Dingemanse, E. See Freud, J., and Grijns, G.
- Dingmann, T. See Sehenc, R.
- Dingwall, A., and Beans, H. T., detection and determination of chromium in tumours, A., 302.
- Zacharias, J., and Siegel, S. L., contamination of nickel crystals grown in a molybdenum resistance furnace, A., 920.
- Dinischiotu, G. T. See Litarczek, G., and Popper, M.
- Dinkin, L., determination of sugar in urine, A., 1320.
- Dinkluge, R., coloured cellulose derivatives, (P.), B., 961.
- Di Nola, E. See Pertusi, C.
- Dinslage, E., and Windhausen, O., determination of age of eggs during summer months, B., 889.
- Dipied, J., cleaning and paint-removing compositions, (P.), B., 238.
- Dippel, C. J., system of thermostats for a series of temperatures below room temperature, A., 479.
- and De Boer, J. H., adsorption of caesium on calcium fluoride films, and associated swelling phenomena, A., 457.
- See also Custers, J. F. H., and De Boer, J. H.
- Dippenaar, B. J., environment and seed treatment in relation to common potato scab, B., 566.
- Di Prisco, L., blood-catalase in intoxication by phosphorus, lead, manganese, and nickel, A., 532.
- Directie van de Staatsmijnen in Limburg, mixed fertilisers containing ammonium nitrate, (P.), B., 805.
- Dirr, K. See Felix, K.
- Dirschel, W., acyloins. V. Photochemical formation of acetoin, butyrolin, and acetylphenylcarbinol, A., 1037.
- and Thron, M., simplified preparation of acridones and 9-chloroacridines, A., 956.
- Dischendorfer, O., condensation of benzoin with resorcinol, A., 1302.
- Diserens, L., [printing] para red, using a nitrosoamine, B., 425.
- Dispersions Process, Inc. See Barnard, A. E., Mitchell, J. K., and Pratt, W. B.
- Disselhoff, H. See Müller, Eugen.
- Distillers Co., Ltd., Joshua, W. P., Stanley, H. M., and Dymock, J. B., ethyl alcohol [from ethylene], (P.), B., 776, 954.
- and Lockey, J., aëration of liquids or dispersion of gases or vapours therein, (P.), B., 336, 657.
- Distler, W., and Mönch, G., removal potential and atomic separation, A., 993.
- Ditchburn, R. W., surface motion of sputtered particles, A., 213.
- Deposition of sputtered films, A., 914.
- See also Braddick, H. J. J.
- Ditman, L. P., and Cory, E. N., response of maize ear worm to various sugar solutions, B., 484.
- Ditmar, R., retarders of vulcanisation [of rubber], B., 200.
- Improving nerve of [rubber] vulcanisates by rubber-latex concentrates, B., 515.
- Scaling wax, B., 596.
- Ditt, M. See Funk, H.
- Dittler, E., formation of kaolin, A., 484.
- and Köhler, Alexander, mixed crystals in the ternary system An-Ab-Cg, A., 46.
- Dittlinger, H. See Crow, W.
- Dittlinger-Crow Process Co. See Crow, W.
- Dittmar, changes in body composition with various diets and with starvation, A., 1075.
- Dittmar, F. See Seck, W.
- Ditto, Inc. See Carr, K. W.
- Dittrich, E., determination of gaseous hydrocarbons by a condensation method, B., 137.
- Effect of pressure on corrosion of steels by hydrogen sulphide, B., 192.
- Determination of active sulphur in benzene, B., 818.
- Behaviour of active sulphur in benzene towards metals, B., 819.
- Determination of sulphur in fuels; survey of the most important papers which have appeared since 1929, B., 1041.
- Dittrich, K., and Boos, W., screen analysis of beaten pulp, B., 859.
- Dittrich, W., alteration of bones by experimental chronic sodium fluoride poisoning, A., 91.
- Divine, R. E., prevention of rancidity in soaps, (P.), B., 556.
- Dix, E. H., jun., and Aluminum Co. of America, corrosion-resistant aluminium alloy articles, (P.), B., 512.
- Dix, W., efficiency of Schleswig-Holstein permanent pastures as related to soil, sward, and climatic factors, B., 360.
- Manurial trials with various forms of lime, B., 1026.
- and Rautenberg, E., sterilisation of soil by means of an electric current, B., 1071.
- Dixit, K. R., inner potential of semiconductors, A., 1230.
- See also Darbyshire, J. A.
- Dixon, B. E., amino-compounds of platinum chloroamines, A., 134.
- and Kennedy, W. Q., optically uniaxial titanogluite, A., 1030.
- See also Read, H. H.

- Dixon, H. H., bast-sap, A., 1214.
- Dixon, J. K., reactions of hydrogen atoms with hydrazine and with ammonia, A., 31. Ultra-violet absorption bands of ammonia, A., 660.
- Dixon, K. C., and Harrison, K., glucosone, A., 184.
- Dixon, M., and Keilin, D., measurement of tissue respiration, A., 629.
- Dixon, T. F., influence of ovarian and pituitary hormones on calcium metabolism, A., 643.
- Dixon, T. J., device to isolate explosions occurring in chemical plants, B., 128.
- Dixon, T. R., spirits, oils, etc., from coal or similar materials, (P.), B., 996.
- Djang, T. G. See Cartledge, G. H.
- Djatschkov, N. N. See Oparin, A.
- Djich, A., anti-rust solution for radiators, (P.), B., 176.
- Dmitrenko, G. I. See Teletov, I. S.
- Dmitrenko, M. See Feinschmidt, O.
- Dmitriev, G. A. See Libikh, S. F.
- Doak, B. W., chemical determination of type in white clover, B., 839. Movement of added phosphate in soil. I., B., 1072.
- Doan, G. E.,  $\gamma$ -ray radiographic testing, A., 1027.
- Dobbs, E. C., surface resistance of human enamel to acid decalcification, A., 83.
- Dobbs, E. J., theory of metal cleaning, B., 591.
- Dobeneck, P. von. See Moll, T.
- Dobenecker, O., time factor in the conductivity and dielectric capacity of electrolytes in solvents of various viscosities, A., 908.
- Dobinski, S., dielectric polarisation of solutions of sulphur in carbon disulphide, A., 447. Dielectric polarisation of liquid phosphorus, A., 765.
- Dobrokhotova, E. A. See Teplov, J.
- Dobrovolny, F. J., and Roessler & Hasslaer Chem. Co., refrigerating composition, (P.), B., 658.
- Dobry, (Mme.) A., action of resorcinol on silk fibroin. II., A., 730. See also Duclaux, J.
- Dobry-Kurbatov, A. See under Dobry, (Mme.) A.
- Dobson, G. M. B. See Götz, F. W. P.
- Doby, G. von, enzymes and salt ions. IV. Invertase concentration in *Penicillium glaucum* in nitrogen deficiency, A., 188.
- Dockerty, S. M., specific heat of copper from  $-78^{\circ}$  to  $0^{\circ}$ , A., 1109. See also Bronson, H. L.
- Dodd, E. N. See Britton, H. T. S.
- Dodd, F. R., spontaneous combustion or ignition of hay, B., 282.
- Dodd, K. See Minot, A. S.
- Dodds, E. C., and Pope, (Sir) W. J., dinitro-*o*-cresol as a stimulator of metabolism, A., 1077. See also Adam, N. K., Burrows, H., and Cook, J. W.
- Dodds, (Miss) M. L. See Cox, G. J.
- Dodé, M. See Maignon, C.
- Dodge, B. F., physico-chemical factors in high-pressure design, B., 127.
- Dodge, F. D., molecular compounds of cineole, A., 279.
- Döbbeling, S. E. See Caldwell, M. L.
- Doede, C. See Harkins, W. D.
- Döderlein, A. See Borst, M.
- Doell, T. W., and Standard Oil Co. of California, lubricating oil, (P.), B., 539.
- Dömötör, K., rapid commercial analysis of crude potash from beet vinasses, B., 983.
- Döpel, R., energetics of reciprocal effect in corpuscular impact, A., 333. Investigation of negatively-charged hydrogen atoms by light emission in the photographic range, A., 333. Range of particles from atomic disintegration at low voltages, A., 551.
- Doerell, E. G., grassland management, B., 201.
- Dörfeldt, W. See Blanck, E.
- Dörfel, F. See Philipp, Kurt, and Rosin, P.
- Dörge, F., Erichsen test for sheet metal, B., 1015.
- Döring, H., calcium oxalate rings; peculiar case of periodic precipitate formation, A., 1114.
- Döring, T. See Maurer, E.
- Doering, U. See Spanner, H. J.
- Dörr, W. See Koenig, P.
- Dœuvre, J., menthogycol and its dehydration, A., 509. Pyrolysis of menthogycol and isopulegyl acetate, A., 613. isopulegone; pyrolysis of isomylisopulegol, A., 1054.
- Dogadkin, B., and Balandina, V., ageing processes of rubber. II. Gold reaction on products of incipient oxidation of rubber, B., 1069. and Lavrenko, M., condition of rubber in solutions. II. Influence of temperature on viscosity of solutions of different concentrations, B., 838.
- Doherty, H. L., and Heat Treating Co., process and apparatus for distilling oil, (P.), B., 854. See also Loebell, H. O.
- Doherty Research Co. See Björkstet, W. G., Brandt, D. G., Burch, E. F., Isham, R. M., Lyons, H. N., Merley, S. R., and Morgan, John D.
- Dohi, J., antibacterial power of trypanflavine, isravine, panseptin, and mercurochrome, A., 640.
- Dohogne, A., influence of magnesium sulphate on moisture content of tanning extracts, B., 931. and Rézabek, G., oxidation of fish oils by chromic acid and acidified dichromate solutions, B., 718.
- Doisy, E. A. See Katzman, P. A., and MacCorquodale, D. W.
- Doktorovich-Grebnitski, S., iron deposits of the Nikolaevski works, Irkutsk, A., 1031.
- Doladugin, A. I. See Tilitschév, M. D.
- Dolák, F. See Dědek, J.
- Dolan, M. See King, E. J.
- Dolch, M., new filtration technique, B., 47. Systematic fuel investigation to provide a basis for quantitative elucidation of coal decomposition in practice, B., 337. and Kollwitz, J., oxidation of coal; reaction of steam with incandescent coke, B., 256. and Schindler, R., changes in coalification of lignitic brown coal produced by heating under pressure with water, B., 496.
- Dolch, P., thermodynamic measure of activity of catalysts, A., 1018. Action of steam on coal; superimposed equilibria, B., 5. Chemical basis of production of water-gas from coke and coal, B., 48. Action of water vapour on coal and coke, B., 337. Influence of reactivity of coke on behaviour of  $\text{CO}_2$ :  $\text{H}_2$  mixtures at  $600$ – $1200^{\circ}$ , B., 772. Carbon dioxide content of combustion gases as a chemical index figure in gas technology, B., 994.
- Dolejšek, V., *N*- and *O*-series [of tungsten] and *N*-absorption edge of X-spectra, A., 1097. and Filcakova, (Mlle.) D., *M* series of tantalum obtained by means of an ionic tube, A., 332.
- Dolgoploska, B. A. See Rubinstein, A. M.
- Dolgov, B. N., Bolotov, B. A., and Popova, A. N., utilisation of carbon monoxide obtained in the electro-distillation of phosphorus. I., B., 784. Bolotov, B. A., and Silina, N. P., utilisation of carbon monoxide obtained in the electro-distillation of phosphorus. II., B., 784. and Volnov, J. N., catalyst for production of butyl alcohol from ethyl alcohol, B., 953.
- Dolin, B. T. See Fishberg, E. H.
- Dolinek, A., calculation of yields and losses in mixed beet-sugar factory operation, B., 166. Practical calculation of amount of molasses in raw [beet] factory, B., 325. Rapid approximate determination of invert sugar in raw [beet] sugar, B., 325.
- Dolique, R., direct combination of hydrogen with phosphorus, A., 1021. and Grangiens, A., two forms of phosphorus acid, A., 1129.
- Dolivo-Dobrovolski, V. V., concentration of low-grade nickel ores, B., 871. Composition and distribution of mineral compounds in complex copper ores, B., 920. Suitability of oxidised copper ores for concentration, B., 921.
- Dolk, H. E. See Thimann, K. V.
- Dolley, P. T., and Air Reduction Co., apparatus for production of hydrocyanic acid, (P.), B., 426.
- Dollins, C. B. See Bishop, (Miss) E. R.
- Dolman, C. E., relationship between hæmolytic and toxigenic properties of staphylococcus cultures, A., 318.
- Dolmatov, K. P. See Rutovski, B. I.
- Dolomite, Inc. See Barrett, H. N.
- Dolt, M. L. See Beardsley, A. P., and Crossley, M. L.
- Dom, F. J. P. See Gorter, E.
- Domagk, G. See Moll, T.
- Domański, T., and Suszko, J., *a*-isoquinidine, A., 517.
- Domarev, V., copper deposits of Laiskaja Datscha, Ural, A., 1030.
- Dombrovskaja, N. S., double decomposition in the absence of a solvent. XVI., A., 1246.
- Dombrow, B. A. See Cobb, R. M.
- Dominik, T., relationship between the formation of calcium oxalate crystals in conifers and leaf-fall, A., 874.
- Dominikiewicz, M., structure of kaolins from viewpoint of chemistry of ultramarine. I. Action of dealkalising factors on sodium kaolinites, A., 37. Structure of ultramarines. I. Technical ultramarines as basic material for research, B., 198.
- Dominikówna, M. See Dziewónski, K.
- Dommerich, K. H., strengths properties of moistened salt crystals. IV. Commencement of plasticity in rock-salt rods wholly subjected to water, A., 342.
- Domning, K., investigations on first and second carbonatations, B., 886.
- Domontovitch, M., and Pollossin, V., mobilisation of phosphoric acid of phosphorite and of soils by roots of lupins and other plants, B., 562.

- Don, C. S. D. See Jenkins, C. E.
- Donald, M. B., purification of crude saltpetre, B., 505.
- Donaldson, G., automatic filtering apparatus, (P.), B., 448.
- Donaldson, J. W., alloy steels: their development and application, B., 231. Thermal conductivity of wrought iron, steel, malleable cast iron, and cast iron, B., 919.
- Donaldson, L. C., and Vorwald, A. J., effect of tuberculin on spermatozoa from normal and tuberculous guinea-pigs, A., 1083.
- Donaldson, W. J. See Bolam, T. R.
- Donard, E., and Labbé, H., co-existence in barley radicles of substances producing hyperglycemia and hypoglycemia, A., 633.
- Donat, E., and Stierstadt, O., liquid metal single crystals. I, A., 1003.
- Donat, J. See Scholl, Roland.
- Donau, J., microbalance, A., 801. Microchemical determination of gold in gold alloys, B., 791.
- Doncescu, A., determination of flame temperature during expansion in explosion motors, B., 818.
- Doneen, L. D., micro-method for [determination of] nitrogen in plant material, A., 327.
- Donelson, E. See Hunscher, H. A.
- Donhofer, C., carbohydrate metabolism of the chick embryo, A., 855.
- Donk, E. C. van, Steenbock, H., and Hart, E. B., nutritive deficiency of milk with specific reference to manganese, energy, and pituitary relations, A., 857.
- Donle, H. L., dipole moments of benzene derivatives with freely rotatable substituents, A., 448.
- See also Fuchs, O.
- Donley, D. See Youmans, J. B.
- Donnelly, L. H. See Stewart, T. D.
- Donnan, F. G., membrane equilibria, A., 22. Thermodynamic functions of radiation, A., 660.
- and Guggenheim, E. A., exact thermodynamics of membrane equilibria, A., 127.
- Donnan, J. D. H. See Morse, H. W.
- Donnay, L. M., atomic multiplets in stellar spectra, A., 1220.
- Donnelly, J. F., and Donnelly-Jenkins Co., heating of fluids in a still, etc., (P.), B., 288.
- Donnelly-Jenkins Co. See Donnelly, J. F.
- Dōno, T., copper age in ancient China. I and II, B., 109, 630.
- Donovan, C. G., electrolytic method for determination of copper and lead in Bordeaux-lead arsenate mixtures, B., 518.
- Donovan, P. P. See Reilly, J.
- Dóny, O., sublimation and solid condensation of vapours, A., 479.
- Doody, T. C. See Lewis, G. N.
- Doohan, W. P. See Stratford, R. K.
- Dooley, D. D., and Dooley Improvements, Inc., filter, (P.), B., 689.
- Dooley, M. D. See Rice, F. O.
- Dooley Improvements, Inc. See Dooley, D. D.
- Doeren, J. See Waterman, H. I.
- Doormaal, van. See Audubert, R.
- Doosaj, S. S., and Bhagwat, W. V., solubilities of weak acids in salts of weak acids at very high concentrations, A., 897.
- D'Or, L. See Eucken, A.
- Dorabalska, A. See Štefba-Böhm, J., and Swientoslawski, W.
- Doraiswami, Y. G. See Dey, B. B.
- Doran, C. A., laboratory esterifying and fractionating apparatus, A., 480.
- Doran, G. F., refining and purification of metals [nickel-silver], (P.), B., 312.
- Dorcas, M. J., and Nat. Carbon Co., arc carbon for producing ultra-violet light, (P.), B., 475.
- See also Baxter, G. P., and Supplee, G. C.
- Dorohe, J. See Meersseman, F.
- Dore, J. I. See Watson, C. J.
- Dorée, C., and Garratt, D. C., isocholesterol. I. Lanosterol and a new method for its preparation, A., 710.
- and Healey, A. C., action of potassium permanganate solutions of graded pH on cotton cellulose, B., 910.
- Dorenfeldt-Holtan, M., determination of total sulphur in cellulose waste liquor, B., 223.
- Dorfmann, R. See Du Vigneaud, V.
- Dorfmueller, G. See Spengler, O.
- Dorier, P. C., action of  $\alpha$ -dichloropropylene on sodium derivatives of arylaliphatic alcohols, A., 710. Action of  $\alpha$ -dichloropropylene on primary aromatic amines, A., 1043.
- Dorman, C., comparison of cropped and virgin soils, B., 933.
- Dorman, Long & Co., Ltd., and Wright, H. E., alloy steel for structural purposes, (P.), B., 272.
- Dorn, W. See Kazenmaler, A.
- Dorner, K. See Dieterle, H.
- Dorner, O. See Meisenheimer, J.
- Dornow, A. See Lenohs, H.
- Dornte, R. W., electron diffraction and molecular structures: carbonyl compounds, A., 1223.
- Dorofeev, V. M. See Budnikov, P. P.
- Dorr Co., Inc., thickening of pulp or sludge in settling apparatus, (P.), B., 370. Treatment of sewage sludge, (P.), B., 494. Classifiers, (P.), B., 529, 993\*. Washing or classifying apparatus, (P.), B., 735. Sedimentation apparatus, (P.), B., 992. Sewage-treating apparatus, (P.), B., 1038.
- See also Becraft, F. W., Bousman, S. I., Coley, F. B., Keefer, C. E., Newton, H. W., Rankin, R. S., and Scott, C. H.
- Dorransoro, J. See Piña de Rubies, S.
- Dorsch, K. E., hardening and corrosion of cement, B., 107. Hardening and corrosion of cement. III. Viscosity of cement during setting, B., 269.
- Dorsey, H. E. See Enzor, O. K.
- Dorsten, A. C. van, high-frequency glow discharge, A., 1220.
- Dortheimerówna, G. See Dzięwowski, K.
- Dorza, A. See Szebellédy, L.
- Doškař, J. See Milbauer, J.
- Dosne, R., and Canadian Internat. Paper Co., pure cellulose from cellulosic raw materials, (P.), B., 142. Preparing cellulose xanthate, (P.), B., 301.
- Doss, K. S. G., fluoremetric formula, A., 476. Minimal critical pressure of explosions, A., 572.
- Dos Santos, S. J., analysis of bitumens and asphalts, B., 452.
- Dostal, L. E. See Andrews, E.
- Dostál, V. See Dubský, J. V.
- Dotterweich, H., function of calcium deposits as buffer reserves in acid-base regulation: chalk glands of the earthworm, A., 1195.
- Dougall & Sons, Ltd., J., and Mitchell, W. B., filler [chequer]-bricks for regenerators for industrial furnaces, (P.), B., 131.
- Dougan, C. E., apparatus for washing gas, (P.), B., 336.
- Dougherty, G., and Taylor, Wendell H., new condensation reaction of thiophenols, A., 499.
- Doughnut Machine Corporation. See Blinn, H. M.
- Doughty, R. H. See Baird, P. K., and Seborg, C. O.
- Douglas, C. B. E., native wire silver: formation and possible significance, A., 252.
- Douglas, R., and Gen. Foods Corp., preparation of pectin, (P.), B., 283.
- Douglass, W. A. See Du Pont de Nemours & Co., E. I.
- Dourine, A., manganese-nickel alloys, B., 393.
- Dow, H. H., and Dow Chem. Co., electric production of carbon disulphide, (P.), B., 61. Electrolytic apparatus [for electrolysis of molten salts, e.g., magnesium chloride], (P.), B., 72. Halogenated aliphatic hydrocarbons, (P.), B., 260. Means for vaporising liquids, (P.), B., 370. High-temperature lubricant, (P.), B., 420. Stabilised heating fluid, (P.), B., 576. Multi-stage gas purification [for synthesis of ammonia], (P.), B., 702. Heat-energy transfer medium, (P.), B., 944.
- Dow Chemical Co., [zinc]-magnesium alloys, (P.), B., 794. Derivatives of 2-hydroxydiphenyl, (P.), B., 907. Magnesium-base alloys, (P.), B., 925.
- and Barstow, E. O., protecting magnesium and its alloys at elevated temperatures, (P.), B., 794.
- and Gann, J. A., casting of readily oxidisable metals [magnesium], (P.), B., 874.
- Gann, J. A., and Reynolds, F. L., magnesium-base alloys, (P.), B., 794.
- Putnam, S. W., and Poffenberger, N., animal and vegetable glues and gelatinous materials generally, (P.), B., 33.
- See also Barstow, E. O., Bass, S. L., Beutel, A. P., Britton, E. C., Coleman, G. H., Dow, H. H., Gann, J. A., Grebe, J. J., Grether, E. F., Griswold, T., jun., Hale, W. J., Heath, S. B., Hunter, R. M., Jones, C. W., Martin, L. F., Mills, L. E., Nutting, H. S., Perkins, R. P., Plant, R. A., Schwegler, C. C., Smith, Albert K., Stewart, Leroy C., Stoesser, W. C., Strosacker, C. J., Ward, L. E., Weidemann, G. H., Williams, W. H., Winston, A. W., and Zuckermandel, E. C.
- Dowell, G. See Cherry Tree Machine Co.
- Dowlen, T. H., and Richfield Oil Co. of California, oxidation of asphaltic oils, (P.), B., 820.
- See also Chappell, M. L.
- Downer, R. E. See Burmah Oil Co.
- Downer, T. B., protective treatment of ferrous pipe, B., 590.
- Downes, A. D. W., accelerative effect on vulcanisation of a salt of diphenylguanidine, B., 480.
- Downes, A. W., and Kahlenberg, L., chemistry of indium, A., 917.
- Downes, H. C. See La Mer, V. K.
- Downes, H. R. See Woodward, H. Q.

- Downie, C. C., practical "test" manipulation; handling the cupellation furnace, B., 970.
- Downing, F. B. See Du Pont de Nemours & Co., E. I.
- Downing, G. H., and Holding, H. R., ovens or kilns for manufacture of earthenware tiles, bricks, etc., (P.), B., 549.
- Downs, C. E. See Harding, V. J.
- Downs, C. M., and Gottlieb, S., precipitin reaction. II. Effect of electrolytes on formation of precipitates, A., 846.
- Downs, C. R., and Barrett Co., apparatus for controlling temperatures in chemical reactions, (P.), B., 575.
- and Davis Emergency Equipment Co., ammonia absorbent, (P.), B., 385.
- Downs, W. G., jun., plasticity of calcified tissues. II. Results of minor variations in the calcium-phosphorus-vitamin-D complex, A., 100.
- Dox, A. W., ethylene-*NN'*-bis-5:5-diethyl-barbituric acid, a bimolecular barbituric acid with hypnotic properties, A., 514.
- Homodeoxyveronal [diethylmalon-ethylenediamide] and its homologues, A., 1171.
- Doyle, C. A. See Skelton, T. R.
- Doyle, J. E. See Brett, R. C.
- Doyle, W. L., modification of the Backlin-Kirk combustion chamber for micro-determination of carbon and lipins, A., 520.
- Simultaneous demonstration of starch and fat in protozoa, A., 865.
- Doyle, H. C., and Watson, W. A., soil formation in southern Nigeria (the "Ilepa" profile), A., 589.
- Drabkin, D. L., and Austin, J. H., spectrophotometric studies. I. Spectrophotometric constants for common haemoglobin derivatives in human, dog, and rabbit blood, A., 81.
- Drachev, S. M., solubility of solid phase of soil in water, B., 278.
- Drackett Chemical Co. See Adams, E. M.
- Dräger, O. H. See Stelzner, H.
- Dragan, C., pretreatment of soils for mechanical analysis, B., 516.
- Mechanical analysis of soils, B., 516.
- Dragendorff, K., egg- and plant-lecithin; physiological dissimilarity, A., 847.
- Draghetti, A., lysimeter fertilisation tests with cereals and direct application of nitrogen, B., 483.
- Nitrogen assimilation by cereal plants during cold spring; pot experiments, B., 483.
- and Fabbri, A., fertilisation of cereals by direct application of nitrogen, B., 483.
- Dragunov, S. S., organo-mineral manures from peat, B., 760.
- Draize, J. H., sodium tetrathionate and methylene blue in cyanide and carbon monoxide poisoning, A., 1079.
- See also Beath, O. A.
- Drake, E. J. R., degreasing of wool with [volatile] solvents, (P.), B., 585.
- Drake, J. L., and Libbey-Owens-Ford Glass Co., glass melting furnace, (P.), B., 148.
- Glass furnace, (P.), B., 548.
- Drake, N. L., and Spies, J. R., large-capacity extractor, A., 926.
- Drake, W. V., and McElvain, S. M., reaction of organic halides with piperidine. III. *cyclo*hexyl bromide and butyl bromides, A., 512.
- Drakeley, T. J., Cotton, F. H., and Bridge & Co., Ltd., D., mechanically masticating, working, mixing, or manipulating rubber or similar mixes, (P.), B., 1023.
- Drakes, Ltd., and Thompson, M., settings for vertical retorts used in production of gas, etc., (P.), B., 851.
- Drane, H. D. H. See Mukerjee, K. C.
- Dratshev, S. M., absorption of the arsenite ion by soils, A., 774.
- Drawe, R., gasification of fuels in oxygen to produce gas of high calorific value, B., 818.
- Dreblow, E. S., and Harvey, A., control [of alloys, etc.] through spectroscopy, B., 710.
- See also Harvey, A.
- Drees, K., and Kowalski, G., evaluating the coking capacity of coals, B., 946.
- Extraction of phenols from phenoxide solutions, B., 1046.
- Drefahl, L. C., and Grasselli Chem. Co., preparation of metal [iron] sheets for annealing, (P.), B., 310.
- Dreisch, T., total radiation from heated carbon dioxide, A., 206.
- Dreisel, W., [sheet-metal] heat-insulating panel for drying ovens, etc., (P.), B., 97.
- Drekter, I. J. See Sobel, I. P.
- Dreosti, G. M., volumeters for solid bodies, A., 249.
- Dresch, I. J., and Prosthetic Products, Inc., ["glyptal"] artificial dentures, (P.), B., 479.
- Drescher, F. K., peridotite of Kaersut (Greenland) and associated dyke rocks, A., 46.
- Dresel, E. G., and Hettehe, H. O., comparison of crispbread with other bread, B., 40.
- Dressel, G. F. See Barstow, E. O.
- Dressel, J. W., liver concentrate, (P.), B., 893.
- Dresser, A. L., and Browne, A. W. [with Mason, C. W.], anhydrous hydrazine. VI. Hydrazine trinitrido monohydrazinate,  $N_2H_4N_3N_2H_4$ , A., 683.
- Dressler, E., Kwiatkowski, H., and Schilf, E., depressor substance in extract of mistletoe, A., 745.
- Dressler, P. d'H., and Swindell-Dressler Corp., preparation of [low-temperature] fuel, (P.), B., 8.
- Drew, H. D. K., planar forms of large carbon rings, A., 766.
- and Head, F. S. H., derivatives of methylene blue, A., 516.
- Stereochemistry of platinum, A., 1040.
- Preston, G. H., Wardlaw, W., and Wyatt, G. H., plato- and pallado-sulphines, A., 1282.
- and Tress, H. J., chelated platinamines, A., 1282.
- and Wyatt, G. H., supposed anomaly among plato-tetramines, A., 134.
- Drewsen, P., and Barrett Co., felt component, (P.), B., 57.
- and Hinde & Dauch Paper Co., preparation of straw pulp; manufacture of straw paper, (P.), B., 743.
- Dreyer, K. L., and Tammann, G., recovery [of cold-worked metals] from elastic stress compared with recovery of other properties [on annealing], B., 1015.
- See also Tammann, G.
- Dreyer, N. B. See Young, E. G.
- Dreyfus, C., pile fabric containing derivatives of cellulose, (P.), B., 620.
- Embossing of circular knit fabrics, (P.), B., 746.
- Embossing fabrics and articles containing organic derivatives of cellulose, (P.), B., 746.
- Dreyfus, C., carrying out organic chemical reactions in improved reaction media, (P.), B., 855.
- Warp printing [of cellulose derivative yarns], (P.), B., 863.
- Schneider, George, and Celanese Corp. of America, treatment of fabric containing cellulose esters, (P.), B., 746.
- Dreyfus, H., [shrinkage effects in] textile materials [containing cellulose derivatives], (P.), B., 16.
- Aliphatic [acetic] anhydrides, (P.), B., 139, 341, 582, 661, 777, 856, 904, 1047.
- Vinyl compounds, and polyvinyl compounds, (P.), B., 217.
- Manufacture or treatment [packaging] of yarns containing artificial filaments, (P.), B., 224.
- Manufacture or treatment [fireproofing] of textile and other materials, (P.), B., 265.
- Treatment or manufacture of hydrocarbons, (P.), B., 294.
- Alcoholic oxidation products of olefines, (P.), B., 296.
- Aliphatic anhydrides and their recovery, (P.), B., 296.
- Manufacture or treatment [reduction of electrification] of artificial sheets, films, foils, etc., (P.), B., 302.
- Manufacture or treatment of products or articles having a basis of cellulose derivatives, (P.), B., 344.
- Treatment [hydrolysis] of cellulose carboxylic ester materials, (P.), B., 424.
- [Artificial] filaments, etc., [of reduced lustre], (P.), B., 424.
- Manufacture and treatment of artificial silk, films, etc., (P.), B., 424.
- Direct hydration of olefines [to alcohols], (P.), B., 457.
- Aliphatic alcohols [from olefines], (P.), B., 457.
- Acetaldehyde [from alcohol], (P.), B., 457, 617, 661.
- Artificial filaments, etc., (P.), B., 461.
- Performance of chemical reactions, (P.), B., 495.
- Artificial materials from organic derivatives of cellulose, (P.), B., 503.
- Conversion of hydrocarbons into other hydrocarbons of lower mol. wt., (P.), B., 536.
- Artificial [cellulosic] filaments, etc., (P.), B., 543.
- Manufacture and treatment of [cellulose ester or ether] artificial silk, etc., (P.), B., 543.
- Treatment of threads, etc., with liquids, (P.), B., 545.
- Manufacture and treatment of artificial filaments, threads, yarns, ribbons, fabrics, etc., containing cellulose derivatives, (P.), B., 585, 699.
- Artificial silk and similar products, (P.), B., 586.
- Manufacture or treatment of products or articles containing cellulose derivatives, (P.), B., 597.
- Solvent treatments of cellulose derivatives, (P.), B., 597.
- Manufacture and use of amino-acid derivatives having wetting, cleansing, emulsifying, and dispersing properties, (P.), B., 617.
- Threads, films, etc., (P.), B., 621.
- Spinning of artificial filaments, etc., (P.), B., 621.
- Treatment of artificial fibrous materials, (P.), B., 621.
- [Delustring] treatment of [cellulose derivative] filaments, fabrics, etc., (P.), B., 623.
- Concentration of aliphatic [acetic] acids, (P.), B., 661.
- Manufacture or treatment of filaments, films, etc., from cellulose derivatives, (P.), B., 699.
- Reduction of nitrogen-containing organic compounds [nitro- to hydrazo-benzeno], (P.), B., 778.
- Manufacture or treatment of products or articles

## Dreyfus, H.—continued.

containing cellulose derivatives, (P.), B., 781. Compositions containing cellulose derivatives, (P.), B., 782. Manufacture or treatment of solutions, plastic masses, films, etc., containing lacquer bases; manufacture or treatment of artificial filaments, threads, ribbons, yarns, fabrics, etc.; [manufacture and use of cyclic ethers from trihydric alcohols], (P.), B., 782. Cyclic di-ethers [from aldehydes and glycols], (P.), B., 822. [Nitrogen-containing] cellulose derivatives, (P.), B., 825. Hydration of olefines, (P.), B., 855, 904. Manufacture of addition products of olefines, (P.), B., 855. Cyclic ethers [from aldehydes and glycols], (P.), B., 856. Dispersing and emulsifying processes, (P.), B., 857. Ethers of cellulose esters, (P.), B., 860. Oxidation of olefines, (P.), B., 903. Synthesis of formic acid, (P.), B., 904. Methylamine, (P.), B., 954. Aliphatic acids, anhydrides, and ketones, (P.), B., 954. Vinyl compounds, (P.), B., 954. Condensation products [glycerol cyclic ethers], (P.), B., 955. Manufacture and treatment of filaments, etc., (P.), B., 960. Cellulose or cellulosic materials, (P.), B., 1004. Artificial filaments, threads, films, fabrics, etc., [of increased heat-resistance], (P.), B., 1005. Production and treatment [to increase the heat-resistance] of artificial filaments, threads, yarns, ribbons, etc., (P.), B., 1005. Compositions containing artificial filament-forming substances and products made therefrom, (P.), B., 1005. [Waterproof] cellulose derivative products, (P.), B., 1005. Textile materials and their treatment and manufacture; [coating of acetate silks, etc., to minimise electrification], (P.), B., 1007. Conversion of methane into other hydrocarbons [ethane and ethylene], (P.), B., 1046. Cellulose esters, (P.), B., 1051.

See also Brit. Celanese.

Dreyfus, O., products [plastic masses, moulding powders, etc.] containing cellulose derivatives, (P.), B., 929.  
 Dreyspring, C. See Krügel, C.  
 Dribble, C. B., fumigation with propylene dichloride mixture against *Pyrausta nubilalis*, Hubn, B., 1074.  
 Drier, R. W., and Walker, H. L., X-ray investigations of gold-rhodium and silver-rhodium alloys, A., 895.  
 Driessche, J. V. G. van den, amorphous carbon, (P.), B., 774.  
 Driessen, F., influence of moisture in fixation of aluminium mordants [on fibres], B., 425.  
 Driggs, F. H. See Westinghouse Lamp Co.  
 Drikos, G. See Karagunis, G.  
 Drihlon, A., glucose and moulting of crustaceans, A., 420. Phosphorus [in the blood] and moulting of crustaceans, A., 420.  
 Dring, G., plastics: phenolic type and their uses, B., 755.  
 Dringenberg, H. See Zipf, K.  
 Drinker, C. K. See White, J. C.  
 Drinker, P., alternating-current precipitators for sanitary air analysis. I. Inexpensive precipitator unit, A., 249.

Dripps, R. D. See Wallis, E. S.  
 Driscoll, M. E. See Atchley, D. W.  
 Drobile, A. W., and Collins & Aikman Corp., art of coating [pile fabric with rubber compositions], (P.), B., 303.  
 Drofán, A. I. See Gorschtein, G. I.  
 Droit, (Mlle.) S., examination of curcas seed and oil [from *Jatropha curcas*, L.], B., 27.  
 See also François, (Mlle.) M. T.  
 Dros, A., Tulleners, A. J., and Waterman, H. I., catalytic high-pressure hydrogenation of aromatic hydrocarbons, and catalytic high-pressure destruction of the corresponding hydrogenated products. II. Mesitylene. III. Hexamethylbenzene, B., 1046.  
 Drosten, F. See Stout, L. E.  
 Droschmann, H. See Schläpfer, P.  
 Drouot, (Mlle.) P. See Dubrisay, R.  
 Drozdov, N. S., electrochemical reduction of pyridine, A., 1254. Electrochemical oxidation of tervalent chromium to chromic acid, A., 1254.  
 Drucker, C., resistance anomaly of pure bismuth, A., 116. Optical and thermodynamic activity of camphorsulphonic acid in solutions of neutral salts, A., 889.  
 Drug Products Co., Inc., [colloidal solutions of] bismuth sodium gluconate, (P.), B., 172.  
 Drumm, J. J., and Drumm Battery Co., [alkaline] electric storage batteries, (P.), B., 197.  
 Drumm, P. J. See Kuhn, R.  
 Drumm Battery Co., Ltd. See Drumm, J. J.  
 Drummond, D. G., infra-red absorption of quartz, A., 113. Elimination of errors due to absorption in the prism, and other causes, in infra-red absorption measurements, A., 1264.  
 Drummond, J. C., and MacWalter, R. J., biological relation between carotene and vitamin-A, A., 1212.  
 See also Bell, M. E., Gillam, A. E., Haines, R. T. M., MacWalter, R. J., and Watson, S. J.  
 Drummond, W. J. See Ashington Coal Co.  
 Drury, W. R., Imhoff tank effluent aerated to reduce load on filters, B., 174.  
 Druschinin, W. W. See Bresler, S. E.  
 Druyvesteyn, M. J., energy balance of a positive column of sodium vapour, A., 1. Velocity distribution of electrons in the positive column, A., 3.  
 Druzhinin, D. V., conditions influencing action of potash fertilisers on podzols, B., 563. Behaviour of flax towards liming on podzols, B., 564.  
 Dry, T. J., treatment of endemic scurvy by intravenous injection of citrus, A., 740.  
 Dry Ice Corporation of America. See Small, J. D.  
 Dryer, C. G. See Egloff, G., and Lewry, C. D., jun.  
 D'Silva, J. L., and McClelland, E. W., dismutation of some disulphides. II., A., 163.  
 Dnarry-Serra, J., impregnation of thick textile products with [rubber] latex under great hydraulic pressures, (P.), B., 505.  
 Dubaquié, J., colorimetric determination of iron in red wines, B., 985.  
 Dnbas, T., Konopnicki, A., and Suszko, J., successive degradation of  $\alpha$ -isocinchonine (cinchoniline) to cinchotoxine derivatives, A., 1175.

Dubbs, C. P., Alther, J. G., and Universal Oil Products Co., conversion [cracking] of hydrocarbons, (P.), B., 52.  
 and Universal Oil Products Co., conversion of petroleum, (P.), B., 53. Cracking of hydrocarbon oils, (P.), B., 53, 616. Lower-b.p. hydrocarbons, (P.), B., 100. Treatment [cracking] of hydrocarbon oil, (P.), B., 100, 378. Apparatus for treating hydrocarbons, etc., (P.), B., 139. Treating [heavy] hydrocarbons, (P.), B., 139. Cracking of oils, (P.), B., 259, 952. Distillation of coals, (P.), B., 454. Apparatus for treating petroleum, (P.), B., 500. Hydrocarbon oil conversion, (P.), B., 539, 854. Conversion of hydrocarbons, (P.), B., 616. Treating hydrocarbons, (P.), B., 616. Apparatus for producing lower-b.p. hydrocarbons, (P.), B., 616. Cracking of petroleum oil, (P.), B., 616, 776. Apparatus for treating petroleum and other hydrocarbons, (P.), B., 854.  
 Dubey, J. K., soil profile studies of Romney Marsh pastures, B., 559.  
 Dubey, V. S., origin of tektites, A., 1268.  
 Dubinin, B. M. See Seide, O. A.  
 Dubinin, M. M., Andreev, V., Milekhina, O., Petrov, G., and Toropov, S., passage of substances undergoing adsorption through the adsorbent layer, A., 222.  
 Du Bois, D., glass electrode for testing the  $pH$  of blood, A., 81.  
 See also Himwich, H. E.  
 Dubois, E., and Schmid, J., gasification of small coke in built-in producers, B., 48.  
 Dubois, E. A. L., compositions with a base of indiarubber latex for jointing purposes, (P.), B., 677.  
 Du Bois, G., dehydration of alcohol by absorbent and recuperated vapour, B., 953.  
 Dubois, J., action of pyridine vapour on peat, B., 1041.  
 Dubois, M. See Lobel, L.  
 Dubois, P., action of hydrogen peroxide on permanganate, A., 885.  
 Dubois, R. See Lesné, E.  
 Dubouloz, P., intensity of fluorescence of sodium salicylate, A., 554.  
 See also Roche, J.  
 Duboux, O. See Goldstein, H.  
 Dubov, V. G., influence of cultivation on chemical properties of soil, B., 401.  
 Dubowizky. See Semenov, N.  
 Dubpernell, G. See Ferguson, A. L.  
 Du Bridge, L. A., energy distribution of photo-electrons, A., 657.  
 Dubrisay, R., capillary fractionation of fatty acids, A., 1142. Determination of nicotine, B., 571. Action of sulphur on metals [copper and silver], B., 970. Reactions of sulphur in air at low temperatures, B., 1055.  
 and Dronot, (Mlle.) P., a phenomenon of surface chemistry, A., 671.  
 and François, R., direct analysis of tobacco, B., 571.  
 Dubský, J. V., and Bencko, V., 1:2-diaminoanthraquinone-3-sulphonic acid as a reagent for the detection of copper, cobalt, and nickel, A., 1025.  
 and Dostál, V., preparation of nickel-free cobalt salts through cobalt complexes, A., 40. *cis-trans*-Isomerism of salts, MX<sub>2</sub>.2A, A., 813. Procedure with hydrogen sulphide in qualitative analysis, A., 1027.



- Dubský, J. V., and Hauer, E., microacidimetric determination of nickel, A., 365.
- and Langer, A., differentiation of the three stages of dissociation of phosphoric acid, A., 921.
- and Trilek, J., micro-volumetric analysis using diphenylcarbazido and diphenylcarbazone as indicators (mercurimetry), A., 364. Hippurhydroxamic acid, A., 502. Oxidation of ethyl carbamate, A., 516. Acetato-complexes of the alkaline-earth metals, A., 793. Application of mercurimetry in the determination of silver, A., 922. Diketopiperazines. XIV, A., 1281.
- Vitu, M., and Langer, A., red coloration of glycine with ferric chloride, A., 1038.
- Ducamp, A. J., prevention of pre-ignition in internal-combustion engines, (P.), B., 420.
- and Baule, M. E. A., [stoving] lacquers, varnishes, and enamels, (P.), B., 115.
- Du Chrome Film System, Ltd. See Kelley, W. V. D.
- Duckert, R., catalytic oxidation of acenaphthene in solution, A., 1153.
- See also Gutzeit, G., and Paillard, H.
- Duclaux, J., and Barbière, J., limits of fractionation of cellulose nitrates, A., 1009.
- and Dobry, (Mme.) A., condition of cellulose compounds in solution. I. Optical rotation of cellulose acetate, A., 1243.
- and Hirata, F., transformations of gelatin. I. Scattering of light. II. Ultra-filtration, A., 568.
- Ducloux, E. H., *Gymnocalycium multiflorum* [Hook], Britton, and Rose, A., 329.
- Ducournau, A. L., electric furnace method for preparing manganese from manganese sulphate, B., 232.
- Dudley, H. W., [isolation of] bases by means of Reinecke's salt, A., 616.
- and Ochoa, S., benzoylphenacylcarbinol, A., 828.
- Dudley, J. F. See Standard Oil Development Co.
- Dudley, S. F., Edmed, F. G., and Frederick, R. C., production of carbon monoxide from paint in sealed compartments, B., 237.
- Duecker, W. W. See Esmond, L. B.
- Düggeli, M., value of soil inoculation, B., 242.
- Düker, M. See Schucht, F.
- Dünwald, H., and Wagner, C., misplacement phenomena in cuprous oxide and their effect on electrical properties, A., 887.
- See also Baumbach, H. H.
- Duerden, J. E., Bosman, V., and Botha, P. S., mineral metabolism. XIX. Influence of phosphorus and other minerals on wool growth, A., 530.
- Dürer Metallwerke Akt.-Ges., and Meissner, K. L., corrosion-resistant age-hardenable aluminium composite metals, (P.), B., 312. Malleable and age-hardenable aluminium alloys, (P.), B., 474, 593.
- Dürkopp-Werke Akt.-Ges., coloured photographic pictures, (P.), B., 941.
- Duerr, F. See I. G. Farbenind.
- Dürr, H. See Dieterle, W.
- Dürr, M. See Fischer, Hans, and Hahn, A.
- Duerst, U., influence of the chief mineral nutrients on the structure and hygiene of the animal, A., 743.
- Düsing, J. See Mancho, W.
- Dufay, J., spectrum of the night sky, A., 760.
- Duff, J. C., and Steer, E. H., amines. X. Cobaltous and cupric compounds from tris-( $\beta$ -hydroxyethyl)amine; formation of amino-cupric salts, A., 151.
- Duff, R. L., and Standard Oil Development Co., [steel] chemical apparatus and method of lining same, (P.), B., 972.
- Duff Patents Co., Inc. See Treat, F. H.
- Duffendack, O. S., transfer of energy between molecules during collisions: quenching of mercury resonance radiation by admixed thallium vapour, A., 109.
- and Thomson, K. B., action cross-section for collisions of the second kind between atoms and ions, A., 203.
- Wolfe, R. A., and Smith, R. W., quantitative analysis by spectroscopic methods, A., 920.
- See also Owens, J. S., Roy, A. S., Schaefer, F., and Thomson, K. B.
- Duffing, G., viscosimeters [for liquids], (P.), B., 371.
- Dufford, J. R. See Hough, A.
- Dufford, R. T., photovoltaic effect, A., 30.
- Raman spectra and a slight asymmetry of carbon and nitrogen atoms, A., 209. Photovoltaic effects in Grignard solutions. III, A., 915.
- See also Thomas, C. D.
- Dufour, A., interferometer with polarised beams, A., 1264.
- Dufour, R., initial electrolytic over-voltage of evolution of hydrogen over mercury, A., 355.
- Dufraisse, C., nomenclature of the rubrenes referred to a prototype "rubene," A., 269. Rubenes, organic compounds able to absorb free oxygen and then liberate it, A., 1284. Alterations of rubber by atmospheric oxygen, B., 239.
- and Buret, R., dissociable organic oxides; extension of methods of preparation of rubrene; synthesis of a dichlorodiphenylrubene,  $C_{36}H_{18}Cl_2$ , and its preparation from dibenzoylmethane, A., 57.
- Buret, R., and Girard, R., dissociable organic oxides. XIV. Violet chloro-compound of the 1:l'-o-phenylenerubene series, A., 1284.
- and Monier, J. A., dissociable organic oxides; dissociable oxide of 1:l'-di-p-tolyl-3:3'-diphenyl-5:5-dimethylrubene, A., 704.
- Vieillefosse, R., and Le Braz, J., application of antioxygenic action to fire extinction; extinction of flame, B., 772.
- Duftscheid, F. See Buddenberg, O.
- Duguid, J. B. See Gough, J.
- Duhamel, E. C., and Comp. Gén. des Ind. Textiles, purification of liquids which have been used for washing textile materials, (P.), B., 1054.
- Duimov, A. M. See Simonov, K. A.
- Duirmont, E. I., corrosion of iron in mixtures of water vapour and air, A., 33.
- Dulin, T. G. See Holley, K. T.
- Dull, M. F., and Simons, J. H., free phenyl radicals in the gas phase, A., 1178.
- Thermal decomposition of lead tetraphenyl, A., 1313.
- See also Simons, J. H.
- Dulon, R. See Dupont, G.
- Dultz, G., testing of ampoule glasses, B., 507.
- Dumanois, P., classification of liquid fuels for internal-combustion engines with mechanical injection, B., 533. Influence of temperature on detonation in internal-combustion motors, B., 850.
- See also Briand, M.
- Dumont, (Mlle.) M. R. See Bornand, L., and Kahane, E.
- Dumoulin, A., calcination of limestone [in sugar factories], B., 827.
- Dumskaja, A. I. See Zakharenko, A. G.
- Dunbar, C. See Imperial Chem. Industries.
- Dunbar, R. E., water-motor stirrer, A., 926.
- Dunbar, T. L., digestion of fibrous materials, (P.), B., 460.
- and Chemipulp Process, Inc., pulp, (P.), B., 1003.
- Duncan, C. W. See Huffman, C. F.
- Duncan, D. R. See Cremer, H. W.
- Duncan, J. A., absorption spectrum of sulphur dioxide, A., 1227.
- Duncan, J. T. See Barlow, O. W.
- Duncan, W. See Shirer, J. W.
- Duncan, W. E., and Ott, E., reaction between neutral lead mercaptides and sulphur, A., 48.
- Dunez, A., rôle of thermophilic bacteria in the preparation of artificial farmyard manure, B., 1073.
- Dunham, H. V., glue and method for making plywood, (P.), B., 758. [Vegetable] glue, (P.), B., 932.
- Dunham, R. A., Flaxman, M. T., and Union Oil Co. of California, reclaiming rubber, (P.), B., 33.
- and Union Oil Co. of California, devulcanising and reclaiming rubber; plasticising rubber, (P.), B., 33.
- Dunham, R. S., surface treatment of aluminium or aluminium alloys, (P.), B., 554. Surface treatment of aluminium or aluminium alloys, (P.), B., 714.
- and Tosterud, M., surface treatment of aluminium or aluminium alloys, (P.), B., 112, 312.
- Dunkel, G., methane indicator for direct detection of fire-damp in mines, B., 947.
- Dunlap, H. L. See Epperson, E. R.
- Dunlop, R. D. [with Gardner, J. H.], preparation of 4-fluoro- and 4:4'-difluorobenzophenone, A., 610.
- Dunlop Rubber Co., Ltd., Anode Rubber Co., and Hemm, C., goods containing rubber, etc., (P.), B., 32.
- Anode Rubber Co., Lacey, B. W. D., and Bawcutt, P. J., [rubber] compositions for covering surfaces of roads, etc., and for manufacture of paving blocks, (P.), B., 33.
- Anode Rubber Co., McCowan, W., Owen, E. W. B., and Twiss, D. F., concentration, preferably with simultaneous compounding, of aqueous dispersions of or containing rubber or similar materials, (P.), B., 880.
- Anode Rubber Co., Madge, E. W., and Ward, A. N., goods containing rubber or similar material, (P.), B., 641.
- Anode Rubber Co., and Murphy, E. A., compositions containing rubber or similar material [from aqueous dispersions], (P.), B., 1023.
- Anode Rubber Co., Murphy, E. A., and James, R. G., articles containing rubber, (P.), B., 641.
- Anode Rubber Co., Murphy, E. A., and Madge, E. W., goods containing rubber or similar materials, (P.), B., 880.



- Dunlop Rubber Co., Ltd., Anode Rubber Co., Murphy, E. A., and Niven, A., compositions containing rubber or similar materials, (P.), B., 881.
- Anode Rubber Co., Murphy, E. A., and Simmons, D. N., goods containing rubber [rubber-coated fabrics], (P.), B., 930. Provision of [rubber] articles with a smooth matt finish, (P.), B., 930.
- Anode Rubber Co., and Trobridge, G. W., articles containing rubber or similar material, (P.), B., 80. [Rubber]-coated articles, (P.), B., 930.
- Anode Rubber Co., Twiss, D. F., and McCowan, W., rubber articles from dispersions containing natural rubber latex, (P.), B., 641. Aqueous dispersions of rubber or similar materials, (P.), B., 678.
- Anode Rubber Co., Twiss, D. F., and Murphy, E. A., moulding of articles containing rubber, gutta-percha, or similar organic substances, (P.), B., 318.
- Anode Rubber Co., Twiss, D. F., Murphy, E. A., and Niven, A., goods containing rubber or similar material, (P.), B., 318.
- Brown, L., and Warren, F. W., [rubbered] sheet material, (P.), B., 302.
- and Livings, G., articles [football bladders] containing rubber, etc., (P.), B., 931.
- and Murphy, E. A., forming threads or filaments from aqueous dispersions of rubber, etc., (P.), B., 558.
- Murphy, E. A., and Simmons, D. N., coating compositions [from rubber latex], (P.), B., 557.
- Payne, F. J., Madge, E. W., and Gorham, W. G., rubber compositions, (P.), B., 1069.
- and Quinton, E. E., automatic mill-mixing, warming, etc., working of rubber, etc., and apparatus therefor, (P.), B., 1070.
- and Twiss, D. F., articles containing rubber or similar compositions, (P.), B., 200. Rubber and similar materials and compounds thereof, (P.), B., 558, 641. Compounding of rubber or similar materials, (P.), B., 558.
- Twiss, D. F., and Jones, F. A., rubber compositions, (P.), B., 437, 678, 723, 801. Rubber and similar materials and compounds thereof, (P.), B., 480.
- Twiss, D. F., Jones, F. A., and Anderson, J. H., compositions containing derivatives of balata resins or gutta or similar resins, (P.), B., 757.
- Twiss, D. F., McCowan, W., and Lake-man, A., rubber, (P.), B., 558.
- Twiss, D. F., Wilson, J. A., and Neale, A. E. T., uniting compositions containing rubber, etc., to metal, (P.), B., 515.
- and Warren, F. W., compositions containing rubber, etc., (P.), B., 158.
- Willshaw, H., and Broadbent, F. G., dividing resilient sheet material such as rubber, etc., into strips or filaments, (P.), B., 33.
- Dunmire, R. P. See Rodman, C. J.
- Dunn, C. G. See Brown, F. W.
- Dunn, E. J., jun., rapid determination of specific gravity of pigments and powders, B., 575.
- Dunn, M. S., and Brophy, T. W., decomposition points of amino-acids, A., 151.
- Butler, A. W., and Deakers, T., synthesis of glycylglycine, A., 151.
- and Fox, S. W., synthesis of aspartic acid, A., 940.
- Redemann, C. E., and Lauritsen, S., mode of formation of disubstituted malonic ester derivatives, A., 51.
- Dunn, S., relation of hydrophilic colloids to hardness in cabbage, Brussels sprouts, and lucerne plants as shown by the dye absorption test, B., 645.
- Dunn, T. E., and Bullard Co., anodic removal of surface metal film, (P.), B., 394.
- Dunn, W. C. See Eisenstein, J.
- Dunne, T. C., plant buffer systems in relation to the absorption of bases by plants, A., 436.
- Dunning, F., hydroxymercuri-derivatives of resorcin[ol] iodinated sulphonphthaleins, (P.), B., 988.
- Stickels, A. E., and Hynson, Westcott & Dunning, Inc., mercury derivatives of halogenated phthaleinsulphones, (P.), B., 652.
- Dunnington, F. G., determination of  $e/m$  for an electron by a new deflexion method, A., 444.
- Du Noüy, M. L. See Du Noüy, P. L.
- Du Noüy, P. L., improvements in hydrogen electrode for determination of  $p_H$ , A., 242. Critical temperature of serum. VII. Electrical conductivity of serum in relation to temperature, A., 293. Surface tension of colloidal solutions, and the action of light on soap solutions, A., 674.
- and Du Noüy, M. L., critical temperature of serum. VI. Absorption spectra in the ultra-violet, visible, and near infra-red regions, A., 175.
- Du Noyer, M. R., and Kahane, E., cholino in opotherapeutic powders, A., 1184.
- Dunstan, A. E. See Anglo-Persian Oil Co.
- Dunstan, E. G. See Johnson, R. C.
- Duoos, S. See Harrel, C. G.
- Dupaix, A. See Lasseur, P.
- Dupic, H. See Lemoigne, P.
- Dupin, A. See Mauriac, P.
- Duplicate Corporation. See Lytle, W. O.
- Duplin, J. V., jun. See Norton, F. H.
- Dupont, E. See Ravaz, L.
- Dupont, G., Allard, J., and Dulon, R., oxidations by selenium dioxide in the terpene series, A., 1166.
- and Gachard, R., Raman effect in the terpene series. III. Products of sulphuric acid isomerism of pinene, A., 337.
- Lévy, J., and Marot, (Mlle.) R., Raman effect in the terpene series. IV. Terpinenes and terpinolene, A., 954.
- and Urien, E., true nature of a so-called dihydroxyrocatechol, A., 952.
- Dupont, G. F. M., and Physical Chemistry Research Co., distillation of combustible carbonaceous materials, (P.), B., 579.
- Dupont, L. See Bechard, R. M.
- Du Pont Cellophane Co., Inc. See Wright, H. H.
- Du Pont Film Manufacturing Corporation, colour photography, (P.), B., 413.
- See also Sease, V. B., and Zelger, G. E.
- Du Pont de Nemours & Co., E. I., forming compounds from acetylene [and organic compounds], (P.), B., 181.
- Du Pont de Nemours & Co., E. I., acetylene reactions; polymerisation products of [acetylene and of] non-benzenoid acetylene polymerides, and composition containing the same, (P.), B., 182. Catalytic production of amines from alcohols and ammonia, (P.), B., 182. Dyes of the isorosinduline and rosinduline series, (P.), B., 184. Polymerisation of vinylacetylene, (P.), B., 216. Anthraquinone derivatives [phenylbenzanthrone and vat dyes therefrom], (P.), B., 261. Organic compounds [hydrohalides of vinylacetylene], (P.), B., 296. Preparation of useful [rubber-like and other] substances from halogen-substituted butadienes, (P.), B., 318. Synthetic rubber, (P.), B., 318, 642. Methyl vinyl ketone, (P.), B., 379. Indanthrone and its derivatives, (P.), B., 380. Coated fabrics [artificial leather], (P.), B., 384. Coloured rubber and colouring-matter preparations suitable therefor, (P.), B., 400\*. Sulphur dyes, (P.), B., 422. Carbon halides, (P.), B., 457. Carrying out of operations with ammonia at elevated temperatures, (P.), B., 506. Reduction compounds of non-benzenoid acetylene polymerides, (P.), B., 540. Emulsions of vinylacetylenes or their polymerides or reduction products, and of synthetic rubber therefrom, (P.), B., 540. Halogenated, unsaturated, non-benzenoid acetylene polymerides or their reduction products, (P.), B., 540. *o*-Amino-aryl mercaptans [*o*-aminothiophenols] and derivatives thereof, (P.), B., 540. Preparation of catalysts for hydrogenating and other reactions, (P.), B., 547. Mono- and di-calcium phosphates, (P.), B., 548\*. Polymerisation of acetylene, (P.), B., 617. Alkyl halides, (P.), B., 617. [Finishing coat for] patent leather, (P.), B., 679. Fluosilicates of aliphatic and heterocyclic amines [insecticides], (P.), B., 741. [Washable] coating for wall-papers, (P.), B., 800. [Apparatus for] manufacture of blasting explosives, etc., (P.), B., 814. Coating compositions [containing flaky pigments], (P.), B., 837. Preparation of halogenated hydrocarbons [from vinylacetylene], (P.), B., 855. Plasticisers for cellulose derivatives and their application, (P.), B., 880\*. Carrying out of chemical reactions with carbon monoxide, (P.), B., 914. [Cellulose] coating compositions [for electric cables], (P.), B., 929. Insecticidal, wood-preserving disinfectant, and similar compositions, (P.), B., 942. Hydrogenation of carboxylic acid [to alcohols, and catalyst therefor], (P.), B., 954. Insulated electric conductors, (P.), B., 1016. Higher alcohols from fats or fatty oils, (P.), B., 1047.
- and Almqvist, J. A., process and apparatus for catalytic gaseous reactions, (P.), B., 175.
- and Arnold, E. F., [washable, grease-resisting] wall paper, (P.), B., 58.
- Barrett, H. J., and Izard, E. F., protective agent for metastyrene, (P.), B., 908.
- and Beekley, J. S., hydrogen, (P.), B., 386, 785. Gas analysis, (P.), B., 902.

- Du Pont de Nemours & Co., *E. I.*, and Bidaud, *F.*, cellulose acetate, (P.), B., 460.
- and Boller, *E. R.*, [phosphatic and nitrogenous] fertilisers, (P.), B., 86.
- Prevention of corrosion, (P.), B., 632.
- and Bowers, *P. C.*, purification of phthalic anhydride, (P.), B., 956.
- and Brill, *J. L.*, catalytic gaseous reactions, (P.), B., 897.
- and Bryan, *L. O.*, gelatinous [low-freezing] explosive composition, (P.), B., 685.
- and Buckley, *J. R.*,  $\beta$ -alkoxyethyl esters of fatty acids [softeners for cellulose derivatives], (P.), B., 822.
- and Burdick, *C. L.*, fertiliser manufacture, (P.), B., 165.
- and Burke, *C. E.*, coating composition, (P.), B., 755.
- Burke, *C. E.*, and Lawson, *W. E.*, waterproofing [paper] composition, (P.), B., 479.
- Calcott, *W. S.*, and Carter, *A. S.*, sulphur chloride-[divinylacetylene] reaction product, (P.), B., 904.
- Halogenating acetylene polymerides, (P.), B., 904.
- Halogenation [of acetylene polymerides], (P.), B., 904.
- Calcott, *W. S.*, Carter, *A. S.*, and Downing, *F. B.*, hydrogenation of hydrocarbons, (P.), B., 997.
- Calcott, *W. S.*, and Douglass, *W. A.*, antioxidant for rubber, (P.), B., 642.
- Calcott, *W. S.*, Douglass, *W. A.*, and Hayden, *O. M.*, compounding of rubber, (P.), B., 979.
- Calcott, *W. S.*, Downing, *F. B.*, and Powers, *D. H.*, synthetic rubber, (P.), B., 1023.
- Calcott, *W. S.*, and Lee, *I. E.*, gum inhibitor [for liquid hydrocarbons], (P.), B., 695.
- Calcott, *W. S.*, and Parmelee, *A. E.*, stabilisation of lead tetra-alkyl, (P.), B., 296.
- Calcott, *W. S.*, and Somers, *N. C.*, phthalic anhydride, (P.), B., 183.
- Calcott, *W. S.*, and Walker, *H. W.*, non-corrosive alcoholic solution, (P.), B., 53.
- Liquid hydrocarbon fuels [containing gumming-inhibitors], (P.), B., 456.
- and Callahan, *M. J.*, reducing solution viscosity of cellulose, (P.), B., 1004.
- and Carter, *A. S.*, hydration of vinyl-acetylene, (P.), B., 904.
- and Collins, *A. M.*, synthetic drying oils, (P.), B., 556.
- and Coolidge, *C.*, preparation of metal salts of half-acid [hydrogen] esters of hydroxylated fatty oils, (P.), B., 1017.
- Coolidge, *C.*, and Holt, *H. S.*, non-caking pigmented coating compositions, (P.), B., 479.
- Cox, *I. J.*, Kirst, *W. E.*, and Woodbury, *C. A.*, concentration of nitric acid, (P.), B., 624.
- and Davis, *Clark W.*, [platinum alloy] catalyst [for ammonia oxidation], (P.), B., 70.
- and Douglass, *W. A.*, concentration of ores and minerals by flotation, (P.), B., 234.
- and Downing, *F. B.*, preparation of polymeride of vinylacetylene, (P.), B., 904.
- Downing, *F. B.*, and Walker, *H. W.*, improvements in liquid fuels, (P.), B., 952.
- Du Pont de Nemours & Co., *E. I.*, and Dykstra, *H. B.*, polymerisation of esters of olefinedicarboxylic acids, (P.), B., 540.
- and Emhardt, *J. C.*, pigmented oil composition and process of inhibiting oxidation thereof, (P.), B., 316.
- and Engelmänn, *M.*, dust disinfectants, (P.), B., 983.
- Engelmänn, *M.*, and Tisdale, *W. H.*, wood preservation, (P.), B., 590.
- and Ensminger, *G. R.*, non-chalking [cellulose] coating composition, (P.), B., 478.
- and Fielding, *E. W.*, inhibiting the oxidation and hydration of [hot] lead[-sodium] alloys, (P.), B., 713.
- and Frei, *J.*, diphenylamines, (P.), B., 261.
- and Gauerke, *C. G.*, coating composition containing  $\beta$ -elaeostearin, (P.), B., 1019.
- and Gilbert, *J. W.*, stabiliser for lead chromate pigments, (P.), B., 719.
- and Grillet, *N. B.*, protection of [metal] apparatus against [carboxylic] acids, (P.), B., 553.
- and Gubelmann, *I.*, preparation of 7:7-dichlorofluoranthrone, (P.), B., 1001.
- Gubelmann, *I.*, and Rintelman, *W. L.*, preparation of anthraquinonesulphonic acids, (P.), B., 1000.
- Henke, *C. O.*, and Etzel, *G.*, preparation of camphene, (P.), B., 999.
- Henke, *C. O.*, and Orthmann, *A. C.*, tanning process, (P.), B., 980.
- Hitch, *E. F.*, and Dahlen, *M. A.*, cellulose derivative compositions, (P.), B., 757.
- Hopkins, *H. H.*, and Segur, *J. B.*, cellulose ether compositions, (P.), B., 316.
- and Howell, *E. T.*, aminoanthrones, (P.), B., 220.
- Howell, *E. T.*, and Stallmann, *O.*, aminobenzyl-*o*-benzoic acids, (P.), B., 219.
- and Hucks, *R. T.*, preparation of coating materials, (P.), B., 639.
- Izsak, *A.*, and McDermott, *F. A.*, production of ethyl acetate, ethyl alcohol, and other products [higher alcohols] by fermentation, (P.), B., 568.
- and Kharasch, *M. S.*, mercury compound of *p*-nitroaniline, (P.), B., 219.
- Seed disinfectant composition, (P.), B., 246.
- and Knapp, *P.*, [phenol-furfuraldehyde] plastic composition, (P.), B., 721.
- and Kramer, *R. L.*, cellulose acetate composition, (P.), B., 639.
- and Larson, *A. T.*, catalyst for production of methanol [methyl alcohol] and other carbon compounds, (P.), B., 53.
- Catalytic material, (P.), B., 189.
- Methyl alcohol and other carbon compounds and catalytic agents therefor, (P.), B., 296.
- [Catalyst for] production of hydrogen, (P.), B., 507.
- Hydrogen, (P.), B., 785.
- and Lawrie, *J. W.*, distillation of fermentation glycerin, (P.), B., 682.
- and Lawson, *W. E.*, polymerisation of vinyl derivatives, (P.), B., 1047.
- Lawson, *W. E.*, and Sandborn, *L. T.*, polymerisation of vinyl derivatives and coating compositions [made therefrom], (P.), B., 639.
- Du Pont de Nemours & Co., *E. I.*, and Lazier, *W. A.*, catalytic hydrogenation and dehydrogenation of carbon compounds, (P.), B., 217.
- Hydrogenation of carboxylic acids, (P.), B., 217.
- Catalytic process [alcohols from aliphatic esters], (P.), B., 217.
- Catalytic production of ketones, (P.), B., 905.
- Catalytic hydrogenation process, (P.), B., 905.
- and Lewers, *W. W.*, coating compositions, (P.), B., 720.
- Lewers, *W. W.*, and Schwartz, *G. L.*, cellulose ether [coating] composition, (P.), B., 1019.
- and Lewis, *H. A.*, polyhydric alcohols, (P.), B., 904.
- and Lheure, *L.*, exothermic reactions, (P.), B., 175.
- Lubs, *H. A.*, Fox, *A. L.*, and Smith, *C. G.*, [reagent for] separation of [copper] ores and minerals by flotation, (P.), B., 712.
- and Lutz, *G.*, piperidine salt of pentamethylenedithiocarbamic acid [vulcanisation accelerator], (P.), B., 218.
- and McIntyre, *W. A.*, black powder composition, (P.), B., 733.
- and Martone, *T. A.*, [dye] lakes, (P.), B., 356.
- and Morton, *F. B.*, coating composition [for leather], (P.), B., 755.
- and Naoum, *P.*, explosive, (P.), B., 573.
- and Nieuwald, *J. A.*, acetals of alkyl ethers of polyglycols, (P.), B., 217.
- and Patterson, *G. D.*, coating compositions, (P.), B., 720.
- Stabilised [glyptal-lithopone] composition, (P.), B., 721.
- and Powers, *H. H.*, preparation of rubber product, (P.), B., 80.
- Accelerator compound [for rubber], (P.), B., 80.
- Rubber product and its preparation, (P.), B., 678.
- and Prince, *E.*, recovery of acetic acid from solutions obtained in cellulose derivative manufacture, (P.), B., 954.
- and Reid, *E. E.*, condensation of alcohols [to higher alcohols], (P.), B., 217.
- Reducing the viscosity of cellulose derivatives, (P.), B., 621.
- and Richardson, *R. W.*, [paper] pulp, (P.), B., 699.
- Richardson, *R. W.*, and Sherman, *C. S.*, cellulose pulp, (P.), B., 102.
- and Rintelman, *W. L.*, anthraquinone bodies [acylated 1:5-dichloro-2:6-diaminoanthraquinones], (P.), B., 221.
- Preparation of 2:6-diaminoanthraquinone sulphides, (P.), B., 908.
- Preparation of 1:5-dichloro-2:6-diaminoanthraquinone-3:7-disulphonic acid and 1:5-dichloro-2:6-diaminoanthraquinone, (P.), B., 1000.
- Rintelman, *W. L.*, and Goodrich, *R. J.*, preparation of di-[*o*-carboxyphenylamino]-anthraquinones, (P.), B., 261.
- and Seaman, *S. E.*, cellulose, (P.), B., 824.
- and Spaeth, *C. P.*, explosive compositions, (P.), B., 733.
- and Svanoe, *H.*, [phosphatic and nitrogenous] fertilisers, (P.), B., 86.
- Taylor, *H. S.*, and Lazier, *W. A.*, catalytic dehydration and dehydrogenation process, (P.), B., 905.
- Catalytic dehydration process, (P.), B., 905.
- and Theumann, *M. J.*, [fireproof] cellulose compositions, (P.), B., 596.

- Du Pont de Nemours & Co., *E. I.*, Tinker, *J. M.*, and Hansen, *V. A.*, separation of  $\beta$ -nitronaphthalene-4:3-disulphonic acid from isomerides, (P.), B., 220.
- Tinker, *J. M.*, and Spiegler, *L.*, (a) preparation, (b) purification, of aryl- $\alpha$ -mides of 2:3-hydroxynaphthoic acid, (P.), B., 1048.
- Tyler, *C.*, and Parker, *F. W.*, fertiliser manufacture, (P.), B., 840.
- Ulich, *L.*, and Goodrich, *R. J.*, purification of an anthraquinone body [2-aminoanthraquinone], (P.), B., 1000.
- and Vail, *W. E.*, preparation of formic acid, (P.), B., 904.
- and Verderosa, *J. M.*, graining ink, (P.), B., 115. Finishing of surfaces, (P.), B., 115.
- Weiland, *H. J.*, and Gubelmann, *I.*, purification of *p*-nitrotoluene, (P.), B., 219. Separation of  $\alpha$ -monosubstituted naphthalenes from their  $\beta$ -isomerides, (P.), B., 220.
- Whitescarver, *W. F.*, and Hopkins, *H. H.*, floor coverings and coating compositions therefor, (P.), B., 1019.
- Williams, *I.*, and Neal, *A. M.*, improvement of ageing qualities of rubber, (P.), B., 678. Preservation of rubber, (P.), B., 1070.
- and Woodbridge, *R. G.*, nitrocellulose propellant powder, (P.), B., 174. Propellant powder, (P.), B., 285.
- and Woodhouse, *J. C.*, gas purification, (P.), B., 181.
- and Wrightsman, *P. G.*, nitrated carbohydrate explosives, (P.), B., 894.
- and Wurtz, *A. J.*, benzanthrone, (P.), B., 908.
- and Zinner, *D.*, preparation of azo-dyes, (P.), B., 1001.
- Du Pont Rayon Co. See Charch, *W. H.*, Haskins, *J. F.*, Lecomte, *G.*, and Prince, *E.*
- Du Pont Viscoid Co., [cellulosic] plastic sheeting, (P.), B., 699.
- See also Rocker, *G.*
- Dupouy, *G.*, and Scherer, *M.*, molecular theory of simultaneous optical effects of rotatory magnetic polarisation and of magnetic birefringence, A., 339.
- See also Rosenblum, *S.*
- Duprat, *P.*, complexes of hydroferro- and hydroferri-cyanic acids with aldehydes and ketones, A., 376.
- Dupret, *M.*, rubber products, (P.), B., 880, 979.
- Dupuy, *E.*, and Hackspill, *L.*, thermal expansion of boron, A., 894.
- Duquéniois, *P.*, distinction between ter- and quinqué-valent arsenic by the formation of iodoantipyrine antimonate, A., 921.
- See also Laborde, *E.*, and Volmar, *Y.*
- Duran-Reynals, *F.* See Strum, *E.*
- Durand-Gasselin, *R.*, fertilisers having a base of ammonium magnesium phosphate, (P.), B., 38.
- Durand & Huguenin Akt.-Ges., sulphamic acids of 2-aminoanthrahydroquinonedisulphuric acid esters, (P.), B., 141. Sulphuric acid ester suitable for use in dyeing and printing textile fibres, (P.), B., 141. Fast colour reserves under aniline black, (P.), B., 144. Yellow mordant dyes, (P.), B., 184. Sulphuric esters [from halogenated dianthraquinoneazines] for use in dyeing and printing textile fibres, (P.), B., 221.
- Durand & Huguenin Akt.-Ges., printing of silk [with chrome dyes], (P.), B., 265. Dyeing of wool by means of vat dyes, (P.), B., 462. Azo-dyes, (P.), B., 779. Fast prints on cellulose ester fabrics, (P.), B., 783.
- Durant, *H. T.*, and Stubbings, *E. O.*, filtering or thickening apparatus, (P.), B., 370.
- See also Blomfield Eng. Co.
- Durant, *W. W.* See Brit. Thomson-Houston Co.
- Duratex Corporation. See Carnegie, *D.*, jun.
- Durau, *F.*, and Horn, *A.*, adsorption of gases at virgin salt surfaces, A., 899.
- Durbin, *V. S.*, operation of a cupola furnace, (P.), B., 833.
- Duret, *G.*, preservation of sugar liquors, (P.), B., 888.
- Durfee, (*Miss*) *D. A.* See Taylor, *A. M.*
- Durgin, *C. B.*, Jenkins, *R. L.*, and Swann Research, Inc., diaryl-containing wax-like solid, (P.), B., 907.
- Du Rietz, *C.*, exchange of cations by sulphite-cellulose, A., 1113.
- Durio, *E.*, and Shurlati, *A.*, dioximes. XCVIII, A., 287.
- Duriron Co., Inc. See Corson, *M. G.*
- Durruty, *C. A.* See Corso, *A. L.*
- Durst, *G.*, determining "stiffness" of [jute] fabrics, B., 618.
- Durupt, *A.*, and Schlesinger, *A.*, interferometric method [applied to Abderhalden's reaction]; controls and interpretation, A., 1331.
- Dusen, *C. A. V.* See under Van Dusen, *C. A.*
- Dusi, *H.*, nutrition of *Euglena*. I. *Euglena gracilis*. II. *E. stellata*, *klebsii*, *anabæna*, *deses*, and *pisciformis*, A., 647, 866.
- Dussen, *A. A.*, van der. See Jorissen, *W. P.*
- Dutcher, *R. A.*, factors influencing vitamin content of foods, B., 364.
- See also Hunter, *J. E.*
- Dutchievici, *O.* See Angelescu, *E.*
- Dutilloy, *J.*, hyposulphites in sugar manufacture, B., 761.
- Dutilloy, *R.*, flocculation and preliming [of beet juice], B., 840.
- Du Toit, *P. J.*, Malan, *A. I.*, and Groenewald, *J. W.*, mineral metabolism. XVIII. Phosphorus in nutrition of sheep, A., 530.
- Malan, *A. I.*, Louw, *J. G.*, Holzapfel, *C. R.*, and Roets, *G. C. S.*, mineral content and feeding value of natural pastures in the Union of South Africa, B., 599.
- See also Malan, *A. I.*
- Dutt, *A.* See Ghosh, *Sudhamoy*.
- Dutt, *S.* See Lal, *J. B.*
- Dutta, *A. K.*, absorption spectrum of sulphur dioxide, A., 112.
- and Sen-Gupta, *P. K.*, absorption spectra of some higher oxides, A., 207.
- Dutta, *P. C.*, dyes derived from quinoxaline-2:3-dicarboxylic acid, A., 167. Dyes derived from acenaphthenequinone and isatin: fluorenoacenaphthazines and fluorenoindazines, A., 167. Indigoid dyes. II. 1:2-Naphthathiophenanthreneindigotin. III, A., 1169. Dye derived from phenanthraquinone; acenaphthenophenanthrazines, A., 1172. Azine dyes derived from  $\alpha$ - and  $\beta$ -naphthathiopyran-1:2-diones, A., 1174.
- Dutta, *R. L.*, Basu, *T.*, and Ghose, *P. K.*, kusum oil in soap-making, B., 113.
- Dutton, *G. R.* See Noller, *C. R.*
- Duval, (*Mme.*) *R.*, cobaltic pentammines, A., 40.
- Duveneck, *F. B.* See Webster, *D. L.*
- Du Vigneaud, *V.*, Dorfmann, *R.*, and Loring, *H. S.*, growth-promoting properties of *d*- and *l*-cystine, A., 89.
- Dyer, *H. M.*, and Harmon, *J.*, growth-promoting properties of homocystine and proof of the structure of homocystine, A., 1074.
- and Meyer, *C. E.*, temporary formation of azlactone ring in racemisation of acyl derivatives of amino-acids with acetic anhydride, A., 156.
- Sealock, *R. R.*, and Effen, *C. van*, availability of *d*-tryptophan and acetyl-*d*-tryptophan to the animal body, A., 89.
- See also Butz, *L. W.*, Loring, *H. S.*, and Pierce, *H. B.*
- Du Vigneaud, *Z.* See Pierce, *H. B.*
- Dux, *W.* See Scheiber, *J.*
- Dvornikoff, *M. N.*, and Monsanto Chem. Works, mixed phenyl alkyl esters [plasticisers], (P.), B., 956.
- Dwyer, *F. P.*, and Mellor, *D. P.*, crystal structure of indium, A., 666.  $\beta$ -Cristobalite in Australian opals, A., 691.
- Mellor, *D. P.*, and Trikojus, *V. M.*, use of potassium dichromate and sodium nitrite in aromatic nitrosations, A., 816.
- Dyakonova, *Z.*, testing thickness of zinc on galvanised wire, B., 1061.
- D'Yarmett, *E. C.*, and Fractionator Co., apparatus for heat-treating liquids, (P.), B., 529. Fractionating tower, (P.), B., 769.
- Dyche, *S. K.* See Bawden, *A. T.*
- Dyckerhoff, *H.*, treatment of coffee beans, (P.), B., 731.
- and Armbruster, *R.*, tannase, A., 982.
- and Tewes, *G.*, adsorption of enzymes on protein. I. Pepsin adsorption, A., 535.
- Dye, *G. H.* See Caldwell, *B. P.*
- Dye, *G. M.* See Pako Corp.
- Dye, *H. W.* See Tower, *M. L.*
- Dyer, *B.*, estimation of extract of coffee and chicory, B., 570.
- Dyer, *C. P.* See Healy, *J. J.*, jun.
- Dyer, *E.* See Baudisch, *O.*, and Johnson, *T. B.*
- Dyer, *H. M.* See Du Vigneaud, *V.*
- Dyes, *W.*, protein, fat, and enzyme chemistry in relation to diabetes, A., 415.
- Dyke, *H. B. van*, and Wallen-Lawrence, *Z.*, gonad-stimulating principle of the anterior lobe of the pituitary, A., 431.
- See also D'Amour, *M. C.*, Davis, *J. E.*, Foster, *R. H. K.*, and Wallace, *E. W.*
- Dyke, *W. J. C.*, and King, *H.*, constitution of sulphaphenamine, A., 1062.
- See also Jones, *W. J.*
- Dykens, *F. A.*, and Englis, *D. T.*, production of a palatable artichoke syrup. II. Hydrolysis of the polysaccharide material, B., 1082.
- Kleiderer, *E. C.*, Heubaum, *U.*, Hardy, *V. R.*, and Englis, *D. T.*, production of a palatable artichoke syrup. I. General procedure, B., 1032.
- Dykstra, *H. B.* See Du Pont de Nemours & Co., *E. I.*
- Dym, *E.* See Weissberger, *A.*
- Dymock, *J. B.* See Brit. Industrial Solvents, and Distillers Co.

- Dynamit-Akt.-Ges., vorm. A. Nobel & Co., cast explosive charges having a basis of ammonium nitrate, (P.), B., 174.
- Dyson, N. B. See Dawson, H. M.
- Dziengel, K., Trogus, C., and Hess, K., [cellostriose], A., 261.
- See also Hess, K.
- Dziwowski, K., Dominikówna, M., Galuszkówna, L., and Muż, L., fluorene group; syntheses of ketones and hydrocarbons derived from 2-benzyl- and 2-benzoyl-fluorene, A., 826.
- Kahl, W., Koczorowska, W., and Wulfssohn, A., synthesis of 4:4'-diacenaphthylmethano and of 4:4'-diacenaphthyl ketone, and their oxidation reactions, A., 506.
- and Mayer, J., synthesis of quinoline derivatives. III., A., 956.
- and Moszew, J., new method of preparation of compounds of the quinoline group. I., A., 836.
- Moszew, J., Chechliński, T., and Peitrykowska, I., synthesis of quinoline derivatives, IV., A., 1305.
- Moszew, J., Dortheimerówna, G., and Rózycki, W., synthesis of quinoline derivatives. II., A., 165.
- and Piasecki, S., oxidation products of 5-acetoacenaphthene, A., 505. Acenaphthenequinonesulphonic acids, A., 828.
- and Schweiger, J., synthesis of 2-propionyl- and 2:7-dipropionyl-fluorene, A., 506.
- and Zaleswski, (Mlle.) Z., synthesis of  $\alpha\beta$ -dinaphtho- $\gamma$ -pyrone (1:2:7:8-dibenzoxanthone). II., A., 833.
- E.
- Eadie, R. G. W., fractional distillation, A., 926.
- Eagle, H., specific agglutination and precipitation. II. Velocity of reactions, A., 97.
- Eagle-Picher Lead Co. See Brett, R. C.
- Eagles, B. A., and Sadler, W., cheese ripening; caseinogen-splitting abilities of lactic acid bacteria, A., 1333. Cheese-ripening; nitrogen requirements of lactic acid bacteria. I. Fractional analysis of various nitrogen sources used for determination of sugar-fermenting abilities of lactic acid bacteria, B., 204.
- See also Sadler, W.
- Earl, J. C., and Hall, N. F., chemical changes involved in the formation of aminoazo-compounds. II. Aniline nitrite, A., 498. Nitrosation of methyl-aniline, A., 705.
- Earle, G. C. See Brand, J. J. F.
- Earle, I. P., and Howe, P. E., antip thrombin and globulins, A., 624.
- Earp, K. See Marsh, M. C.
- Eash, J. T., and Upthegrove, C., copper-rich alloys of copper-nickel-tin system, A., 119.
- See also Wise, E. M.
- Eason, J., arrest of hæmorrhage by hypertonic glucose solution, A., 180.
- and Lyon, D. M., high carbohydrate diets in diabetes, A., 628.
- Easson, A. P. T., and Pyman, F. L., constitution of oil-soluble basic bismuth salts, A., 503.
- See also Barker, J. H.
- Easson, L. H., and Stedman, E., molecular dissymmetry and physiological activity [urethanes of  $\alpha$ -m-hydroxyphenylalkyldimethylamines], A., 1046. Relationship between chemical constitution and physiological action. V. Molecular dissymmetry and physiological activity, A., 1077.
- See also Stedman, E.
- East, E. M., and White, B., reactions of *Valonia* and of *Halicystis* to colloids and to injections of proteins, A., 988.
- Eastcott, E. V. See Miller, W. L.
- Easter, G. J. See Benner, R. C.
- Eastern Finishing Works. See Adams, W. H.
- Eastern Manufacturing Co. See Blodgett, C. A., and Hanson, H. H.
- Easterwood, H. W., making phosphoric acid in the blast furnace, B., 667.
- See also Waggaman, W. H.
- Eastlake, W. H. See Western Electric Co.
- Eastland, C. J., Evers, N., and Thompson, J. H., extracts of parathyroid glands containing an anti-growth factor. I., A., 320.
- See also Barker, J. H.
- Eastman, I., and Miller, E. G., jun., gastro-intestinal  $pH$  in rats, A., 412.
- Eastman, N. J., foetal blood. III. Chemical nature of asphyxia neonatorum, A., 85.
- Eastman Kodak Co., [flat] cellulose acetate sheet material, (P.), B., 264.
- See also Allen, C. E., Bramer, H. von, Brooker, L. G. S., Burroughs, R. E., Carroll, S. J., Churchill, R. L., Clarke, H. T., Clement, L. E., Eberlin, L. W., Gray, H. Le B., Hickman, K. C. D., Malm, C. J., Muehler, L. E., Murray, A., Murray, T. F., jun., Nelson, W. C., Noller, C. R., Othmer, D. F., Seymour, M. W., Shannon, A. A., Sheppard, S. E., Smith, H. B., Staud, C. J., Stone, H. G., Taylor, E. R., Van Derhoff, H. E., Webb, W. R., Webber, C. S., Wells, J. B., and Wynd, C. L. A.
- Eastwood, A., nature of antibodies, A., 1182.
- Eastwood, A. H. See Key, A.
- Eastwood, E. See Lochte-Holtgreven, W.
- Eaton, J. T. See Fuson, R. C.
- Eaves, E. C., calcium and phosphorus in the brain in different conditions, A., 297.
- Ebaugh, F. W., and Texas Co., mixing device [for hydrocarbon oil-reagent mixtures], (P.), B., 953.
- Ebaugh, J. A. See Hitch, A. R.
- Ebe, S. R. See Crowell, R. B.
- Ebeling, W., oil sprays used in control of Californian red scale (*Chrysomphalus aurantii*, Mask.) on lemons, B., 119.
- Eberius, E. See Le Blanc, M., and Weigert, F.
- Eberle, B. See Schwab, G. M.
- Eberle, H. See Ziegler, K.
- Eberlin, L. W., Blanchard, L. W., jun., and Eastman Kodak Co., cellulose acetate lacquer containing chlorinated rosin, (P.), B., 1020.
- and Eastman Kodak Co., ultra-violet-sensitive paper, (P.), B., 621.
- Eberly, F. See Dains, F. B.
- Eberson, F., and Mossman, W. G., colloidal gold test for poliomyelitis immune bodies in blood-serum, A., 526.
- Ebert, C., Newkirk, W. B., Moskowitz, M., and Internat. Patents Development Co., dextrose, (P.), B., 808. Purification of sugar solutions, (P.), B., 842.
- Ebert, Fritz, and Cohn, E., ceramic refractory materials. VI. System  $ZrO_2$ - $MgO$ , A., 1013.
- Hartmann, Hellmuth, and Peisker, H., the  $\alpha \rightleftharpoons \beta$  transformation of calcium, A., 891.
- and Woitinek, H., crystal structures of fluorides. II.  $HgF$ ,  $HgF_2$ ,  $CuF$ , and  $CuF_2$ , A., 342.
- See also Ruff, O.
- Ebert, H., streaming processes in gases at low pressures represented by Reynold's numbers, A., 1225.
- Ebert, J., and Farastan Co., iodine addition products of quinoline carboxylic acids and derivatives thereof, (P.), B., 251.
- Ebert, M. S., Rodowskas, E. L., and Frazer, J. C. W., higher valency states of silver, A., 916.
- Ebert, P. F. See Trimble, H. M.
- Ebie, E. See Richter, G. A.
- Ebihara, T. See Aizawa, T.
- Ebina, T., mechanism of effect of thyroxine on tissue metabolism, A., 192.
- Eble, K., and Bretschneider, R., loss of substance in baking of bread, B., 329. Determination of degree of milling of flour in bread, B., 1078.
- and Pfeiffer, H., detection of neutralised milk, B., 602.
- Pfeiffer, H., and Bretschneider, R., [detection of degree of ageing and preservation of] eggs, B., 330.
- Ebright, H. E., Clawson, C. D., and Irwin, J. T., sheet-iron ground-coat reboil and bond studies using several enamelling stocks, B., 704.
- and Hansen, J. E., peculiarity of sheet-iron acid-resisting cover-coat enamels, B., 965.
- Eccles, A. See Imperial Chem. Industries.
- Echard, R. See Taboury, M. F.
- Eck, F., determination of water in geologically young coals by means of an inert gas stream, B., 610.
- See also Zwieg, W.
- Eck, H., table and diagrams for mercury vapour, A., 1238.
- Eckardt, A., Gebauer, R., and Trautenberg, H. R. von, radiation emitted on disintegration of lithium, A., 1099.
- See also Kossel, W., and Trautenberg, H. R. von.
- Eckardt, W. See Alder, K.
- Eckart, C., comparison of the nuclear theories of Heisenberg and Wigner. I., A., 884.
- Eckell, J., influence of structure of contact substance on combustion of carbon monoxide, A., 131. Relations between structure of catalyst and chemical change. I.—III., A., 790, 1253.
- Eckersall, N. See Urquhart, A. R.
- Eckert, pitched plate-chips, B., 984.
- Eckert, C. R., and Barrett Co., composition of matter [for roofing felts], (P.), B., 57.
- Eckert, Franz. See Zerbe, K.
- Eckert, Fritz, Del Mundo, S., and Zschacke, F. H., homogenisation of the frit. III. Effect of water content of sand on miscibility and separation, B., 829.
- Eckert, G., MBV process of surface protection of aluminium and its alloys, B., 67.
- Eckhardt, G. See Marz, H.
- Eckling, K. See Kratky, O.
- Eckstein, H. C., and Lieben, F., cleavage of nitrogen linkings in protein and peptides by the light of the quartz lamp, A., 1063.

- Eckstein, O., and Jakob, A., determination of potash requirement of soils, B., 83.
- Eckweiler, H. J. See Sharp, C. H.
- Eclipse Textile Devices, Inc., [puddling] method of [multi-colour] dyeing loose textile materials, (P.), B., 16.
- Economics Laboratory, Inc. See Murray, R. C.
- Economy Fuse & Manufacturing Co. See Cherry, O. A., and Herbst, C. A.
- Eda, S. See Nakamura, T.
- Eddington, (Sir) A. S., atomic transmutation and the temperatures of stars, A., 1225.
- Eddy, C. T., automatic apparatus assembly for thermal analysis, A., 585.
- Eddy, C. W. See Nelson, E. K.
- Eddy, H. C., and Petroleum Rectifying Co. of California, treatment of oil [emulsion cutting] under vacuum, (P.), B., 9.
- Eddy, N. B., [pharmacology of] phenanthrene derivatives. I. Comparison of phenanthrene and 2-, 3-, and 9-mono-substitution products, A., 858.
- See also Woods, G. G.
- Eddy, W. H., analysis of six New York beers, B., 842.
- See also Kohman, E. F.
- Edel, Emanuel. See Lieben, F.
- Edel, Emil. See Fürth, O.
- Edeleanu, L., [oil] refining process with liquid sulphur dioxide, B., 99.
- Edeleanu Ges.m.b.H., refining of liquid hydrocarbons by means of liquid sulphur dioxide, (P.), B., 52, 214, 537. Lubricating oils, (P.), B., 1045. Purification of viscous lubricating oils by liquid sulphur dioxide, (P.), B., 1045.
- Edelman, H. J. See Ruzicka, L.
- Eden, T., soil erosion, B., 725.
- Eder, R., and Stucki, W., determination of morphine in opium by extraction, B., 1035.
- Edfeldt, O. See Ohlsson, E.
- Edgar, L. C., regenerative furnace, (P.), B., 175.
- See also Brosius, E. E.
- Edgar, R., Weston, M., Barr, F., Fisher, E., and Ross, J., determination of textile fibres, B., 741.
- See also Winton, E.
- Edgar, S. H. See Corran, J. W.
- Edgar Bros. Co. See Simcoe, G.
- Edge, S. R. H., blanchometer [for pulp and paper] and its uses, B., 263. Measurement of acidity of paper, B., 343. Hydration of cellulose, B., 380.
- Edgington, B. H. See Bethke, R. M., and Kick, C. H.
- Edin, H., Berglund, N., and Anderson, Y., green forage and methods of conservation. II. and III. Marrowstem kale; silage of marrowstem kale and swede leaves and tops, B., 986.
- Edisbury, J. R., Morton, R. A., and Lovern, J. A., absorption spectra and constituents of fish oils, A., 1338.
- See also Lovern, J. A., and Morton, R. A.
- Edison, T. A., and Edison, Inc., T. A., [rubber-containing] moulded articles, (P.), B., 479.
- Edison, Inc., T. A. See Edison, T. A.
- Edlbacher, S., Kraus, J., and Leuthardt, F., arginase. IX. Control of arginase action by oxygen, A., 864.
- Edlén, N. E., glass wool cell for measuring aqueous vapour pressure, A., 801.
- Edlén, B., wave-lengths of the vacuum spark spectrum of carbon, nitrogen, and oxygen, A., 991. Term tables of the atomic spectra of carbon, nitrogen, and oxygen, A., 991.
- Edlund, K. See Bataafsche Petroleum Maats.
- Edmed, F. G. See Dudley, S. F.
- Edmonds, W. J., and Commercial Solvents Corp., catalytic apparatus [for synthesis of methyl alcohol, etc.], (P.), B., 2.
- Krechma, I. J., and Commercial Solvents Corp., separation and recovery of acetic and butyric acids, (P.), B., 217.
- Edmunds, C. W., Brueckner, H. H., and Fritzell, A. I., test for liver extract [for use in pernicious anaemia], A., 414.
- Edqvist, T., mobility of positive ions in gases, A., 994.
- Edsall, J. T., and Blanchard, M. H., activity ratio of zwitterions and uncharged molecules in ampholyte solutions; dissociation constants of amino-acid esters, A., 781.
- Hunt, H. B., Read, W. P., and Redfield, A. C., anaerobic fatigue of cardiac muscle and effect of temperature, cyanide, and adrenaline on its development, A., 87.
- Edson, A. W., cod-liver oil in winter ration of pullets, B., 490.
- Edwards, A., and Clephane, P. F. F., evaluation of cellulose sulphite, B., 142.
- Edwards, A. H., and Osborn, S. J., determination of small amounts of invert sugar in presence of sucrose, B., 246.
- Edwards, C. B., and Reilly, P. C., carburising [case-hardening of iron or steel] and composition therefor, (P.), B., 352.
- Edwards, C. H., controlled temperature and humidity room for textile testing at University College, Nottingham, B., 55. Estimation of damage on chlorinated knitted wool fabrics, B., 341. Unshrinkable finish on wool; application in commercial practice, B., 667.
- Edwards, D. S., and Ripperton, J. C., factors affecting electrolytes of starch granules, A., 1214.
- Edwards, H., action of sulphuric and hydrochloric acids on mild steel, B., 390.
- Edwards, H. H., easily constructed pyrometer, A., 801. Composition for use in forming a glazing-solution, (P.), B., 928.
- Edwards, H. T. See Bock, A. V., and Dill, D. B.
- Edwards, H. W., evaporation of metals in vacuum, A., 1027.
- Edwards, J. D., interpretation of moisture permeability measurements [on paints], B., 799.
- and Tosterud, M., oxides and hydrated oxides of aluminium, A., 579.
- and Wray, R. I., painting aluminium, B., 237.
- Edwards, J. E. See Heil, L. M.
- Edwards, R. S., determination of real density of sole leather, B., 642.
- and Browne, G., thermal conductivity of boot and shoe materials, B., 724.
- Edwards, W. A. M. See Hammick, D. L.
- Eekelen, M. van., and Emmerie, A., carotene derivative giving with antimony trichloride an absorption band at 610–630 mμ, A., 432.
- Emmerie, A., Josephy, B., and Wolff, L. K., vitamin-C in blood and urine? A., 1090.
- Emmerie, A., Julius, H. W., and Wolff, L. K., reaction of Carr and Price as a test for vitamin-A, A., 540. Separation of forms of vitamin-A based on the antimony trichloride reaction, A., 987.
- Effkemann, G. See Abderhalden, E.
- Effront, I. A., and Boidin, A., liquefaction and saccharification of amylaceous materials in brewing, (P.), B., 442.
- Efimov, A. See Porai-Koschitz, A.
- Efremov, G. L., use of kyanite in ceramics, B., 705.
- Efremov, N. N., and Veselovski, A. A., preparation of chrome-yellow from lead formate, B., 976.
- Efuji, T. See Yoshimura, K.
- Egami, F. See Soda, T.
- Egan, J. J., Crafts, W., and Kinzel, A. B., oxide analysis by iodine extraction in steel-making problems, B., 348.
- Egartner, L., Halla, F., and Schwarz, E., crystal structure of hydrated cadmium sulphate, A., 12.
- Ege, R., and Menck-Thygesen, P., activation of propepsin, A., 1081.
- Egea, P. See Zappi, E. V.
- Egeberg, H. S., preservation of animal and vegetable substances, (P.), B., 43.
- Egeling, H., recovery of benzol [from coal distillation], B., 1041.
- Eger, G., aqueous electrolysis in metallurgy, B., 87.
- Egerton, A., and Callendar, G. S., saturation pressures of steam (107–374°), A., 217.
- and Milford, M., fusion of carbon, A., 341.
- and Pidgeon, L. M., absorption spectra of burning hydrocarbons, A., 1227.
- and Smith, F. L., hydrocarbon combustion in an engine, B., 612.
- and Ubbelohde, A. R., thermocouple potentiometer, A., 1265.
- Egger, T., dyeing [wool fabric in] two-tone effects, B., 187. Dyeings on wool fast for bathing purposes, B., 344.
- Eggert, C. See Meyer, A. E.
- Eggert, J., and Bincer, H., dependence of osmotic pressure and micellar weight of gelatin solutions on temperature and previous history of the solution, A., 225.
- Egler, N. F., open-hearth furnace, (P.), B., 833.
- Egli, R. See Ruzicka, L.
- Eglits, M., influence of infection on temperature and carbon dioxide evolution from potatoes, A., 654.
- Egloff, G., Benner, H. P., and Universal Oil Products Co., treatment [cracking] of petroleum oil, (P.), B., 539.
- Howard, W. R., and Universal Oil Products Co., converting hydrocarbons, (P.), B., 139.
- and Morrell, J. C., cracking of cottonseed oil, B., 99.
- Morrell, J. C., and Leonhardy, E. C., pressure vessels for oil cracking, B., 7.
- Morrell, J. C., Lowry, C. D., jun., and Dryer, C. G., inhibitors in cracked gasoline. I. Relation of structure to inhibiting effectiveness, B., 136.
- and Nelson, E. F., cracking of Estonian shale oil, B., 374. Cracking of Alaskan fur-seal oil, B., 578.
- Nelson, E. F., and Truesdell, P., Venezuelan petroleum and its working up, B., 452.
- and Schaad, R. E., polymerisation and explosive decomposition of ethylene under pressure, B., 1046.
- and Universal Oil Products Co., treating petroleum oil, (P.), B., 53. [Continuous] cracking of [hydrocarbon] oil, (P.), B., 100. Cracking of [hydrocarbon] oil, (P.), B., 100, 294. Distilling bitumen, (P.), B., 455.

- Egloff, G., and Universal Oil Products Co., cracking of bituminous material, (P.), B., 455. Destructively distilling bitumen, (P.), B., 455. Cracking of oil, (P.), B., 499. Stabilisation of gasoline, etc., (P.), B., 775. Conversion of [hydrocarbon] oils, (P.), B., 854. Cracking hydrocarbons, (P.), B., 902. Resinous compounds [from petroleum], (P.), B., 929.
- See also Lowry, C. D., jun., Morrell, J. C., and Nelson, E. F.
- Egnér, H., determination of readily soluble phosphato in cultivated soil, B., 1072.
- Egorov, A. G. See Isaev, S.
- Egorov, A. N., and Tikhomirov, I. M., properties of high-tension porcelain dependent on its composition, B., 670.
- Egorov, G. G., concentration of ferro-quartzites from the Staro-Sokol district in Kursk, B., 868.
- Egorov, L. N. See Neumann, M. B.
- Egorova, N. P. See Isgarischev, N. A.
- Egyesült Izzólámpa és Villamossági Részvénytársaság, coating metal bodies with azides of emissive metals, and manufacture of metallic or metallic oxide cathodes, (P.), B., 353.
- Ehlers, C., evaluation of motor [lubricating] oils, B., 376. Conradson test for motor [lubricating oils], B., 533.
- Ehlers, R. W. See Harned, H. S.
- Ehmann, L. See Ruzicka, L.
- Ehrenberg, P., soil structure. II, A., 589. and Briese, H., replacement of part of the protein in the food of cows by ammonium hydrogen carbonate, A., 309.
- Ehrenberg, W., visual observation of interference of slow cathode rays, A., 1097.
- Ehrenberg, Wolfgang, determination of aluminium oxide in aluminium alloys, B., 152.
- Ehrenfeld, D. See Oglesby, N. E.
- Ehrenfest, P., phase changes in the ordinary and extended sense classified according to corresponding singularities of the thermodynamic potential, A., 569.
- Ehrenstein, P. See Fromageot, C.
- Ehrensverd, G., halochrome substances in the sterol series, A., 271. Phosphatase. I, A., 863.
- Ehrenwall, E. von. See Abderhalden, E.
- Ehrenzweig, A., phenol-aldehyde resin lacquers, (P.), B., 199. Enamel-lacquered wires, (P.), B., 352.
- Ehret, W. F., and Westgren, A. F., X-ray analysis of iron-tin alloys, A., 562.
- Ehrgott, A. See Little, J. E.
- Ehrhart, E. N., Wickenden, L., and Naugle, J. J., preparation of invert sugars, (P.), B., 888.
- Ehrhart, R. N., and Elliott Co., apparatus for evaporating liquids, (P.), B., 449.
- Ehrismann, O., assimilation of dust by the respiratory passages. I. Assimilation of dust containing lead and copper, A., 186.
- Ehrlich, E. See Thiessen, P. A.
- Ehrlich, F., and Guttman, R., *d*-galacturonic acid. I. Methyl 1-methyl-*d*-galacturonate and 1-methyl-*d*-galacturonic acid, A., 258. *d*-Galacturonic acid from pectin, A., 491.
- Ehrmann, K. See Broche, H.
- Eibergsche Stoombleskerij voorh. G. J. ten Cate & Zonen, desizing and bleaching of textile materials with liquids, (P.), B., 783.
- Eibl, F., and Ajax Electrothermic Corp., induction electric furnace construction, (P.), B., 752.
- Eichel, H. See Freudenberg, K.
- Eichel, K., production, casting, and treatment of Thomas rail-steel ingots, B., 868.
- Eichelberger, W. C., and La Mer, V. K., determination and conductance of sulphuric acid in anhydrous acetic acid, A., 1121. Preparation and properties of anhydrous acetic acid, A., 1141.
- Eichenberg, G., and Eilender, W., influence of quantity and temperature of the blast on oxidation zone in the blast furnace, B., 1010.
- Eichengrün, A., ornamental markings or decorative effects on materials of celluloid-like character, (P.), B., 57. Hard masses [plaster of Paris bandages] having a certain elasticity, (P.), B., 191. Uninflamable or difficultly inflammable solution of nitrocellulose, (P.), B., 514. Preparation of lacquer-like glossy coatings on flexible materials, (P.), B., 719.
- Eichholtz, F., and Birch-Hirschfeld, A., detoxication of copper and zinc by complex-formation, A., 634.
- Keil, W., and Kluge, L., independence of growth and type of metabolism in malignant cells, A., 627.
- See also Flint, E.
- Eichinger, A., potato scab and manuring. III, B., 599. Weed flora and lime status of soils, B., 1028.
- Eichmann, O., infra-red absorption measurements of organic substances. II. Absorption of organic liquids below  $2.7 \mu$ , A., 661.
- Eichner, C. See Lombard, V.
- Eichstädt. See Bünger, H.
- Eidelman, Z. M., influence of phosphorus and of day length on physiological functions in plants, A., 873.
- Eigenberger, E., isomerism in the  $\beta$ -oleostearic acid series, A., 375.
- Eiger, A., fine cement, B., 62.
- Eilender, W., Klinar, H., and Cornelius, H., temper-hardness of high-speed steels, B., 708.
- See also Eichenberg, G., Esser, H., Feldmann, W., and Meyer, O.
- Eilers, L. K. See Small, L. F.
- Eilertsen, L. W., Cone, C. N., Davidson, G., Laucks, I. F., Banks, H. P., and Laueks, Inc., I. F., preparation of soyabean protein-containing material for manufacture of an adhesive, (P.), B., 1033.
- Eilmann, H., detection of heating of milk, B., 522.
- Eilmann, H. J. See Ramsey, T. L.
- Eimer, K., and Bartels, H., influence of diet on urinary excretion of oxalic acid and protective colloids in man, A., 850. and Heinz, K., influence of carbon dioxide on resorption through the skin in baths, A., 860.
- Einaudi, R., magnetic behaviour of the oxygen molecule, A., 11. Prohibited lines due to nuclear spin, A., 992.
- Einecke, E., apparatus for evolution and detection of gases and vapours, A., 140. Constitution of electrically-prepared silver sols, A., 460.
- Eirich, F., and Filz, W., physical chemistry of the adenosinetriphosphoric acids, A., 228.
- Eirich, J. See Eirich, L.
- Eirich, L., and Eirich, J., mixing, kneading, grinding, and sifting machines, (P.), B., 129.
- Eirich Gebrüder. See under Eirich, L.
- Eisenberg-Hamburg, E., effect of strontium salts on movements of *Paramecium caudatum*, A., 316.
- Eisenbrand, J., indirect volumetric determinations, A., 686. Extinction of fluorescence in solutions by organic substances, A., 886.
- Eisenbrand, J. See Barger, G.
- Eisenbrand, T. See Barger, G.
- Eisenhauer, E., jun., and Palmer, C. A., extraction of copper from ores, (P.), B., 111.
- Eisenman, A. J., effect of temperature on carbon dioxide absorption curve of human blood, A., 293.
- See also Peters, J. P.
- Eisenmenger, W. S., distribution of nitrogen in tobacco when supplies of nitrogen and of light are varied during growing period, A., 647.
- Eisenreich, L. See Kieferle, F.
- Eisenschimmel, W. See Zocher, H.
- Eisenschitz, R., phase equilibrium in systems subdivided by membranes, A., 22. Effect of Brownian motion on viscosity of suspensions, A., 224. Multiphase equilibria in systems subdivided by membranes, A., 673. Effect of slipping on viscosity of suspensions, A., 674. Viscosimetry of colloids, especially solutions of cellulose esters, A., 901. and Philippoff, W., mechanical material constants of colloids, A., 902.
- Eisen- & Stahlwerke Oehler & Co., Akt.-Ges., crushing or reducing machines, (P.), B., 944.
- Eisenstecken, F., behaviour of steel pipes under action of strongly corrosive substances, B., 550. and Bierner, L., thermodynamics of the sulphurisation of iron with hydrogen sulphide, B., 1012.
- Eisenstein, J., Beebe, D. S., Anderson, K. E., and Dunn, W. C., coating composition, (P.), B., 115.
- Eisenwerk Nürnberg Akt.-Ges. vorm. J. Tafel & Co., wrought iron, (P.), B., 472.
- Eisleb, O., and Winthrop Chem. Co.,  $\beta$ -dimethylaminoethyl ester of *p*-butyl aminobenzoic acid [local anæsthetic], (P.), B., 1084.
- Eisler, B. See Schittenhelm, A.
- Eisler, H., breakdown discharge as statical ionisation, A., 5.
- Eisler Electric Corporation. See Laise, C. A.
- Eisner, H., and Vollmer, H., reduction of viscosity of greasy oils for cosmetics, etc., (P.), B., 198.
- Eisner, K. See Brass, K., and Kinberg, W.
- Eissner, W., macro-micro-burette, A., 139. Ultra-filtration at high pressures, A., 249.
- Eitel, H., Löhr, G., and Loeser, A., anterior pituitary and thyroid glands; influence of thyreotropic substances on liver-glycogen and blood-ketones, A., 1337.
- Eitel, M. See Schmidt, J.
- Eltel, W., thermal basis of cement burning, B., 466. and Schwiete, H. E., thermo-technical basis of cement burning, B., 107.
- Eitington, I. I. See Kholevo, N. A.
- Ekeberg, E., continuous bleaching of fibrous materials [wood pulp], (P.), B., 743.
- Ekkert, L., detection of papaverine, A., 292.
- Eklund, J., and Erie City Iron Works, gypsum calcining furnace, (P.), B., 60.



- Eklund, W. P. See Cumming, J. F.
- Ekwall, P., system palmitic acid-sodium palmitate, A., 465. Conductivity of alkylammonium picrates in aqueous solution at 0°, 25°, and 90°. II. and III., A., 467. Acid sodium salts of fatty acids of high mol. wt., A., 488.
- and Mylius, Wilhelm, solubility of palmitic and lauric acids and of their sodium salts in alcohol, A., 456.
- Elanski, V. I., antidetonating properties of gasolines from American and Baku oil fields, B., 292.
- El Ayyadi, M. A. S. See Hassan, A.
- Elbe, G. von, photo-dissociation of hydrogen peroxide in presence of hydrogen and carbon monoxide and recombination of OH radicals, A., 236.
- and Lewis, Bernard, thermal equilibrium between oxygen molecules and atoms, A., 350.
- See also Lewis, Bernard.
- Elbel, H., inhibition of blood-clotting by bile *in vitro*. I. and II., A., 296, 1182.
- See also Bayer, G.
- Elchardus, E., and Lafitte, P., thermal study of the systems KCl-BaCl<sub>2</sub> and KCl-LiCl, A., 351.
- Elden, C. A., separation of the anterior pituitary-like hormone from the urine of pregnant women, A., 869.
- Elder, A. L., and Green, N. D., colloidal boron, A., 123.
- See also Holmes, H. N.
- Elderfield, R. C. See Davis, T. L., and Jacobs, W. A.
- Elders, A. T., and Rowland, H. R., comparative study of Canadian and foreign barleys, B., 649.
- Eldin, A. H. See David, W. T.
- Eldridge, G. S., cement concretes, (P.), B., 549.
- Eldridge, J. A., peripheral X-ray levels of the heavy elements, A., 1097. Mean free paths of gases, A., 1233.
- Electric Furnace Co., grid-type resistors for use with electric furnaces, (P.), B., 554.
- and Northrup, E. F., electric induction furnaces [for heating metal sheets], (P.), B., 25.
- Electric Resistance Furnace Co., Ltd., and Robiette, A. G. E., bright annealing of brass and other alloys containing zinc or cadmium, (P.), B., 69.
- Electric Smelting & Aluminum Co., Cowles, A. H., and Prentiss, E. L., precipitating and separating alumina hydrate from solutions of alkali-metal aluminates, (P.), B., 18.
- See also Guertler, W.
- Electrical Research Products, Inc., Blount, H., and Sheel, H., heat treatment of articles, (P.), B., 527.
- and Gioff, P. P., heat treatment of magnetic materials, (P.), B., 273.
- and Legg, V. E., conditioning of magnetic materials [alloys], (P.), B., 926.
- and Scott, J. W., refining of copper, (P.), B., 394.
- Stilwell, G. R., and Prescott, C. H., jun., photo-electric cells, (P.), B., 26.
- Electrical Separation Co., Ltd. See Cage, J. M.
- Electro-Alloys Co. See Whyte, W. C.
- Electro Anti-Corrosion Corporation. See Kirkaldy, A.
- Electroblacks, Inc. See Jakosky, J. J.
- Electro Chemical Processes, Ltd., and Hatschek, E., fungicides [containing copper oxychloride], (P.), B., 600.
- Electromaster, Inc. See Noble, W.
- Electro-Matic Scale Eliminator, Inc. See Daum, H. A.
- Electro Metallurgical Co., and Becket, F. M., nickel steels, (P.), B., 68. Stain-resisting [iron] alloys, (P.), B., 394.
- and Franks, R., alloy steels, (P.), B., 972.
- See also Corson, M. G., George, H. S., Heath, C. S., Kinzel, A. B., Read, W. C., and Udy, M. J.
- Electrons, Inc. See Spanner, H. J.
- Elek, A., and Hill, D. W., micro-determination of halogens in organic compounds, A., 843. Micro-determination of sulphur and phosphorus in organic compounds, A., 1063.
- Elek, L., effect of hormones on blood-sugar regulation, A., 430.
- Elektrochemische Werke München Akt.-Ges., [tung oil] varnishes, (P.), B., 800.
- Elema, B., determination of  $\eta_{sp}$ , A., 41. Theory of reversible two-step oxidation, A., 464. Oxidation-reduction potentials of chlororaphin, A., 909.
- Elenbaas, W. See Burgers, W. G.
- Elford, W. J., principles of ultrafiltration as applied in biological studies, A., 546.
- Elgazin, S., separation of alkaloids by means of buffer mixtures, A., 408.
- Elgersma, J. N., extraction of substances in purified condition, (P.), B., 146.
- Ellas, N. M., heat-insulating and sound-proofing materials, (P.), B., 448.
- Eliason, A. Y., multiplets in the spectra of Nb III and Mo IV, A., 655.
- Elion, E., gas-volumetric method, A., 367. Volumetric method for measuring gas production during dough fermentation, B., 602.
- Eliseev, A. G., Sakharuk, S. A., and Shipalin, P. P., utilising third-grade Nikopolak manganese ore, B., 23.
- Elkin, H. A. See Butterworth, E.
- Elkington, H. D., and Flintkote Corp., artificial dispersions of rubber in water, (P.), B., 116.
- Elkington, J. St. C., and Goldblatt, M. W., effect of adrenaline in muscular disorders, A., 1191.
- Elkins, H. B., and Forbes, G. S., junction potentials between glass and salts in fusion, A., 1015.
- See also Forbes, G. S.
- Elko Chemical Co. See Hand, C. N., and Masters, C. L.
- Elledge, H. G. See Church, J. W.
- Ellenberger, H. B., Newlander, J. A., and Jones, C. H., calcium and phosphorus requirements of dairy cows. II. Weekly balances through lactation and gestation periods, A., 529.
- Ellern-Eichmann, H., relation between sheet strength and sizing of unbleached sulphite pulp, B., 459.
- Ellerton, H. See Hugill, W.
- Ellett, A., hyperfine structure and polarisation of mercury resonance radiation, A., 200.
- See also Heydenburg, N. P.
- Elling, J. W. A., plant for treatment of vegetable and animal raw materials with an extraction or lixiviation liquid, (P.), B., 4.
- Ellingboe, E., and Fuson, R. C., coupling action of the Grignard reagent. V. Influence of the halogen atom of the reagent, A., 1041.
- Ellinger, P., and Koschara, W., new group of animal pigments [lyochromes]. I.—III., A., 298, 847, 1183.
- Ellingworth, S. See Browning, C. H.
- Ellinwood, E. H. See Walker, A. M.
- Elliot, C. S., seasoning of Australian timbers. I, B., 788, 829.
- Elliott, A., intensities of bands in the spectrum of boron monoxide, A., 1101.
- Elliott, F. J. See Thomas, B.
- Elliott, K. A. C., catalytic oxidation of cysteine with copper, A., 958.
- Elliott, R. See Holmes, W. J.
- Elliott, R. B., and Hulett, G. A., rôle of finely-divided mercury in depolariser of the standard cell, A., 468. Standard battery, A., 572.
- See also Hulett, G. A.
- Elliott Bros. (London), Ltd., and Salmon, L. G., gas calorimetry, (P.), B., 258.
- Elliott Co. See Ehrhart, R. N.
- Ellis, A. T. See Wilkinson, A.
- Ellis, C., water- and fire-resistant coated [textile] material, (P.), B., 225. Newer chemistry of coatings, B., 315. [Nitrocellulose] coating compositions, (P.), B., 356. Paper composition, (P.), B., 1006. Composition containing a [glyptal] resinous complex, (P.), B., 1022.
- and Chadeloid Chem. Co., finish-removing composition adapted to remove nitrocellulose coatings, (P.), B., 755. Paint, varnish, and lacquer remover, (P.), B., 755.
- and Ellis-Foster Co., motor spirit containing metallo-organic catalysts and self-made anti-knocking compounds, B., 538. Synthetic ammonia from petroleum-refinery by-products, (P.), B., 546. Oxidised resinous product, (P.), B., 596. Keratin-enamelling compositions, (P.), B., 639. Nitrocellulose cement, (P.), B., 640. Fusible plastic, (P.), B., 640. [Lacquer] compositions containing a synthetic resin or balsam, (P.), B., 719. Alcohol-solubilised nitrocellulose, (P.), B., 720. Rapid-drying [glyptal] synthetic resins, (P.), B., 756. Grease-resisting box board, (P.), B., 912. Artificial resin from glycerol, etc., (P.), B., 978. [Urea-aldehyde] resinous condensation product, (P.), B., 978. Paper product sized with petroleum hydrocarbons, (P.), B., 1006. Phenol-formaldehyde resins containing an alkaline-earth metal base, (P.), B., 1021.
- and Rezyl Corp., non-curling floor covering, (P.), B., 31.
- See also Blyth, J. F., and Nolan, H. O.
- Ellis, C. D.,  $\gamma$ -rays of thorium-B and of the thorium-C bodies, A., 4. Corpuscular X-ray spectra of the radio-elements, A., 204.  $\beta$ - and  $\gamma$ -Rays, A., 995.
- and Mott, N. F., internal conversion of the  $\gamma$ -rays and nuclear level systems of the thorium-B and -C bodies, A., 204. Energy relations in the  $\beta$ -ray type of radio-active disintegration, A., 1100.
- Ellis, E. M. See Case, G. O.
- Ellis, G. H., and Insulite Co., separation of wood fibres, (P.), B., 58.
- See also Brit. Celanese.
- Ellis, J. W., infra-red interference spectra, A., 445. Recording infra-red quartz spectrograph, A., 480.
- Ellis, L. See Challenger, F.



- Ellis, M., and Mitchell, H. H., effect of pasteurisation of milk on the utilisation of its calcium for growth in the rat, A., 976.
- Ellis, N. R., Miller, D., Titus, H. W., and Byerly, T. C., effect of diet on egg composition. III. Relation of diet to the vitamin-B<sub>1</sub> and -B<sub>2</sub> content of eggs: vitamin-A content, A., 1194. See also Byerly, T. C., and Titus, H. W.
- Ellis, O. C. de C., and Morgan, E., "vibratory movement" in flames, A., 129.
- Ellis, O. W., [lead-base bearing] alloy, (P.), B., 592.
- See also Westinghouse Electric & Manufg. Co.
- Ellis-Foster Co. See Bradley, T. F., Ellis, C., Lougovoy, B. N., Nolan, H. O., and Weber, H. M.
- Ellison, T. E., viscosity of cellulose acetate solutions, B., 663.
- Elliston, H. H., evaporating apparatus, (P.), B., 288.
- Ellms, E. H., and Barrett Co., dehydration and distillation of tar, (P.), B., 535. Distillation of tar, (P.), B., 774.
- See also Miller, S. P.
- Ells, S. C., cost of producing solid and liquid hydrocarbons from bituminous sand, B., 179.
- Ellsworth, R., physiology of the parathyroid glands. V. Action of parathyroid extract on the renal threshold for phosphorus, A., 320.
- See also Harrop, G. A.
- Elmanovitch, N. A., and Majoffs, L. C., preparation of phosphorus oxychloride, A., 918.
- Elmen, G. W. See Western Electric Co.
- Elmer, A. W., iodine metabolism in man. I. Blood-iodine and urinary excretion of iodine after single intravenous injection of inorganic iodine in cases with normal thyroids. II. Blood- and urinary iodine after a single intravenous injection of inorganic iodine in hypothyroidism, A., 424, 1190.
- and Scheps, M., influence of callicrein (padutin) on blood-sugar in diabetes mellitus, A., 628.
- Elöd, E., theory of dyeing process; influence of acid dyes on animal fibres, B., 302.
- Elpbick, B. L., detection and estimation of medullated fibre in New Zealand Romney fleeces, B., 222.
- El Saby, M. K. See Channon, H. J.
- Elsasser, W., possible property of positive electron, A., 658.
- Elsbach, E. B. See Waterman, H. I.
- Elsdon, G. D., and Lees, Arnold, citric acid and its detection, A., 807.
- and Stubbs, J. R., f.p. of pasteurised and sterilised milks, B., 204. [Use of the] Hortvet cryoscope [in milk analysis], B., 204.
- Elsen, G., quantum mechanics and the benzene problem. I. and II., A., 664.
- Elsey, H. M. See Westinghouse Electric & Manufg. Co.
- El-Sherbini, M. A., three-dimensional periodic orbits in the field of a non-neutral atom, A., 552.
- Elssner, G. See Bilfinger, R.
- Elssner, R., and Amer. Glanzstoff Corp., evenness of shrinkage, (P.), B., 543. Drying process, (P.), B., 543. Drying of artificial filaments, (P.), B., 543. See also Bitter, J. L.
- Elton, N. W., and Deutsch, E., concentration and precipitation of bilirubin in the gall-bladder and bile ducts, A., 1186.
- Eltz, E., detection of toxins in the milk of lactating women during menstruation, A., 177.
- Elvehjem, C. A., Kline, O. L., Keenan, J. A., and Hart, E. B., heat-stability of the vitamin-B factors required by the chick, A., 323.
- Peterson, W. H., and Mendenhall, D. R., haemoglobin content of blood of infants, A., 1315.
- See also Kline, O. L., Schultze, M. O., and Stare, F. J.
- Elvove, E. See Smith, M. I.
- Ely, H. M., ammonia-chlorine treatment [of water] in Danville, Ill., B., 1088.
- Ely, J. O., pH of blood in cancer, A., 525.
- Elyashevich, M. A., quenching of fluorescence and transfer of energy in iodine vapour, A., 759.
- Elzas, M. See Verkade, P. E.
- Elzemeyer, E. E., Griesedieck, H., and Amer. Pulverizer Co., pulverising or crushing machine, (P.), B., 448, 897.
- Elzin, J. A., afterglow of nitrogen as a method of controlling the purity of gases filling incandescence lamps, B., 636.
- Emden, G., Deuticke, H. J., and Kraft, G., intermediary processes in glycolysis in muscle, A., 1330.
- Embirikos, N., effect of ions on the Raman bands of water, A., 6.
- Emde, H., fission of quaternary ammonium compounds by hydrogenation. XI. Ethylenic and carbon-nitrogen linkings, A., 55. Biosynthesis. IX. Plant materials, A., 102.
- Emden, V. C. See Hughes, J. R.
- Emelús, H. J., and Riley, H. L., luminous reduction of selenium dioxide, A., 685.
- See also Cheesman, G. H.
- Emersleben, O., highly-emissive cathode, (P.), B., 926.
- Emerson, G., Anderson, H. H., and Leake, C. D., lipolytic activity of rat tissues in experimental leprosy, A., 1322.
- Emerson, H. See Heyl, F. W.
- Emerson, R., and Arnold, W., photochemical reaction in photosynthesis, A., 100.
- Emery, A. H. See Partridge, E. P.
- Emhardt, J. C. See Du Pont de Nemours & Co., E. I.
- Emich, F., determination of very small amounts of material, A., 797.
- Emig, H. M., effect of various conditions of storage on potency of tincture of digitalis, B., 250.
- Emiliani, E., Kogan's method for determining citric acid, A., 732.
- Emley, A. L. See Kimberly, A. E.
- Emmel, K., production of cast iron of high strength in a cupola furnace, (P.), B., 793.
- Emmerie, A., inhibitor of the antimony trichloride test for vitamin-A in cod-liver oil, A., 432.
- See also Eekelen, M. van.
- Emmerson, T., and Whiddington, R., elastic and inelastic scattering with angle in helium, A., 550.
- See also Whiddington, R.
- Emmert, E. M., rapid colorimetric determination of total carbon and nitrogen in the same sample, A., 1063. Indirect colorimetric determination of calcium, A., 1133.
- and Ball, F. K., effect of soil moisture on availability of nitrate, phosphate, and potassium to the tomato plant, B., 483.
- Emmett, A. D., Bird, O. D., Nielsen, C., and Cannon, H. J., halibut-liver oil. I. Vitamin potency, physical constants, and tolerance, A., 99.
- Emmett, P. H., and Brunauer, S., adsorption of nitrogen by iron synthetic ammonia catalysts, A., 575.
- and Love, K. S., reduction by hydrogen and thermal decomposition of nitrides made by reaction of ammonia with various promoted and unpromoted iron synthetic ammonia catalysts, A., 1253.
- and Shultz, J. F., equilibrium in the system  $\text{SnO}_2\text{-H}_2\text{-Sn-H}_2\text{O}$ ; indirect calculation of values of water-gas equilibrium constants, A., 570. Gaseous thermal diffusion—the principal cause of discrepancies among equilibrium measurements on the systems  $\text{Fe}_2\text{O}_4\text{-H}_2\text{-Fe-H}_2\text{O}$ ,  $\text{Fe}_3\text{O}_4\text{-H}_2\text{-FeO-H}_2\text{O}$ , and  $\text{FeO-H}_2\text{-Fe-H}_2\text{O}$ , A., 570.
- See also Harkness, R. W.
- Emminger, E. See Fikentscher, R.
- Emmons, J. V., molybdenum high-speed steels, B., 870.
- Emmuel, Y. E., automobile oils from Baku fuel oils, B., 692.
- Emoto, Y., chemotaxis of plasmodia of *Myxomycetes*, A., 316.
- Emparan, E. H. y, air alternator applicable to blast furnaces producing cast iron, smelting furnaces, etc., (P.), B., 833.
- Empey, W. A., refrigeration of meat; conditions determining amount of "drip" from frozen and thawed muscle, B., 730.
- Empire Oil & Refining Co. See Canfield, J. J., and Walker, J. C.
- Emschwiller, G., action of gaseous hydrogen iodide on iodo-derivatives of hydrocarbons; preparation of ethylidene and vinyl iodides and *aaa*-tri-iodoethane, A., 694.
- Emslander, F.,  $p_H$  and dielectric constants in beer, B., 487.
- Emslie, A. R. G., and Henry, K. M., glycogen formation in the fowl, A., 855.
- See also Auchinachie, D. W.
- Emulsoids, Inc. See Knight, H.
- Endell, K., Müllensiefen, W., and Wagenmann, K., viscosity of Mansfield copper blast-furnace slags in relation to temperature, composition, and crystallisation, B., 510.
- Ender, F., difference between synthetic and naturally occurring vitamin-D, A., 1340.
- Enderlein, R. See Euler, H. von.
- Enders, W. See Pomp, A.
- Endô, H., and Kanazawa, S., single potential of aluminium, A., 1247.
- Endo, T. See Osugi, S.
- Endovitzkij, W. J. See Budnikov, P. P.
- Endowment Foundation. See Clickner, F. H.
- Engel, G., crystal structure of compounds of the type  $\text{K}_2\text{PtCl}_6$ , A., 1106.
- Engel, H., physiology of nitrifying organisms in natural soils. I. Influence of nitrogenous organic materials on nitrification, B., 163.
- and Kanfmann, A., transformation of ammonium nitrate and urea in soils, B., 562. Transformation of ammonium sulphate in soil, B., 562.
- Engel, Rene, copper sprays and  $p_H$ , B., 934.

- Engel, *Rudolf*, McQuarrie, *I.*, and Ziegler, *M.*, mineral economy after administration of posterior pituitary gland preparations, A., 1337.
- Engelberg, *H.* See Rappaport, *F.*
- Engelbrecht, *G.* See Braune, *H.*
- Engelhard, *E.*, electrical and optical behaviour of semi-conductors. IX. Mechanism and origin of "dark" current and electrical conductivity of cuprous oxide, A., 1000.
- Engelhard, *H.*, and Pütter, *K.*, mode of action of gas-mask filters, B., 206. Water economy in gas masks with one- and two-way respiration, B., 846.
- Engelhard, *Inc.*, *C.* See Hebler, *W. O.*, and Krueger, *R. H.*
- Engelhardt, *A.*, and Rüping, *H.*, purification of illuminating gas by removal of benzol with active charcoal, B., 611. [Active-charcoal and wash-oil benzols], B., 994.
- Engelhardt, *E.* See Esser, *H.*
- Engelhardt, *V.*, Eser, *G.*, Hein, *H.*, and Siemens & Halske A.-G., apparatus for electrolytically refining precious metals [silver], (P.), B., 635.
- and Schönfeldt, *N.*, throwing power of electrolytic baths, B., 631.
- Engelhardt, *W. von.* See Manegold, *E.*
- Engelmann, *A.*, determination of photoelectric wave-length limit for rhenium, A., 662.
- Engelmann, *M.* See Du Pont de Nemours & Co., *E. I.*
- Engels, *O.*, phosphoric acid [fertiliser] question, B., 36. Value and use of various nitrogenous fertilisers, B., 359. Influence of various applications of lime on solubility of phosphates of acid soils, B., 759.
- See also Kling, *M.*
- Engers, *E. M. van*, and Kramers, *H. A.*, application of the phase integral method to the hydrogen molecule ion, A., 660.
- Engholm, *F. W.*, composition for manufacture of artificial stone, wood substitutes, etc., (P.), B., 63.
- Engle, *E. W.*, and Fansteel Products Co., [nickel-copper-silver alloy] contact material, (P.), B., 972.
- Engler, *H.*, digestion trials with poultry, B., 1033.
- Englert, *E.*, and Sohuster, *K.*, variation of reflecting power of bismuth on magnetisation, A., 8. Magnetic resistance change of a bismuth wire, A., 452.
- Englert, *O.*, Becker, *Wilhelm*, and Seidl, *K.*, voluminous table salt from fused rock salt, (P.), B., 624.
- See also Gewerkschaft Gevenich.
- Englert, *R.* See under Englert, *O.*
- Englert & F. Becker Chemische Fabrik, *R.* See under Gewerkschaft Gevenich.
- Englis, *D. T.* See Dykins, *F. A.*
- Engleish, *O. B.* See Moreton, *H. H.*
- English, *F.*, resilience and elasticity of leather, B., 161.
- English, *L. L.*, circulator for ice water, A., 1136.
- English, *S.*, opal glass: *résumé* of the work of the B.S.I. Sub-Committee ELG/3/2 on light-diffusing glass, B., 346.
- English Electric Co., Ltd., and Andrews, *H. I.*, devices for allowing gases to bubble through a liquid, (P.), B., 177.
- Enlund, *B.*, decomposition of the arsenic acids, A., 1061. Determination of the configuration of polyhydroxy-compounds, A., 1140.
- Enklewitz, *M.* See Lasker, *M.*
- Enkvist, *T.*, santenone derivatives; preliminary note, A., 273. Synthesis of santenone acid, A., 273. Constitution of santenone and santenone acid, A., 822.
- Enlund, *B. D.*, and Enlund, *H.*, determining the contents of a foreign substance [silicon in iron or steel], (P.), B., 834.
- Enlund, *H.* See Enlund, *B. D.*
- Emor, *W. T.* See Lane, *N. B.*
- Enomoto, *G.* See Tsunokae, *R.*
- Enseltmo, *J.* See Florence, *G.*
- Enseltner, *L.* See Späth, *E.*
- Enslin, *O.*, apparatus for measuring absorption of liquid by porous substances capable of swelling, and for the characterisation of wetting power, A., 481. See also Freundlich, *H.*
- Ensminger, *G. R.* See Du Pont de Nemours & Co., *E. I.*
- Entemann, *O. E., jun.*, and Johnson, *J. R.*, relative reactivity of various functional groups towards a Grignard reagent, A., 940.
- Entrikin, *J. B.* See Raiford, *L. C.*
- Enzinger-Union-Werke Akt.-Ges., filter presses, (P.), B., 816. Cleansing and sterilising of filter mass, (P.), B., 817.
- Enzor, *O. K.*, and Dorsey, *H. E.*, electrolytic production of gases [hydrogen and oxygen], (P.), B., 1016.
- Ephraim, *F.*, optical investigation of uranium compounds, A., 660.
- Jantsch, *G.*, and Zapata, *C.*, reflexion spectrum of halides of rare earths, especially erbium, A., 444.
- Epperson, *E. R.*, and Dunlap, *H. L.*, relationship between mole fractions and absolute viscosities of blended lubricating oils, B., 137.
- Eppler, burning and colouring of gem stones, A., 1257.
- Eppson, *H. F.* See Beath, *O. A.*
- Epstein, *A.*, potassium content of cancerous tumours, A., 1321.
- Epstein, *A. A.*, and Consolidated Patentees Corp., combustible paste, (P.), B., 819.
- Epstein, *A. K.*, growing of yeast, (P.), B., 28. Egg product, (P.), B., 731. and Harris, *B. R.*, egg noodles, (P.), B., 731.
- Epstein, *D.*, paraldehyde in digitalis standardisation by the cat method, A., 977.
- See also Gunn, *J. W. C.*
- Epstein, *D. A.*, and Upolovnikov, *I. S.*, catalysts for ammonia synthesis, B., 668.
- Epstein, *E.* See Watt, *J. M.*
- Epstein, *S.* See Utevski, *A.*
- Epstein, *S. P.* See Geness, *S. G.*
- Epstein Akt.-Ges., *J. H.* See Chem. Fabr. S. Krooh A.-G.
- Erb, *J. H.* See Krauss, *W. E.*
- Erba Fabrik Chemischer Produkte Spezialitäten für die Textilindustrie, treatment of textiles, papers, leather, skins, and other fibrous substances, (P.), B., 784. [Wetting agents for use in] treating [mercerising] natural and artificial cellulosic fibres with alkali, (P.), B., 864.
- Erbacher, *O.*, determination of absolute surface area of metals, A., 458. Absolute determination of active surface of noble metals, A., 458. Mechanism of exchange of metal atoms for more noble ions, A., 468. Nature of spontaneous separation of polonium on silver in various acids, A., 1009. Exchange between atoms and ions of a metal, A., 1121. and Käding, *H.*, chemical behaviour of polonium, A., 1016.
- Erbe, *F.*, determination of distribution of pores according to their size in filters and ultra-filters, A., 672.
- Erbe, *H.* See Stollé, *R.*
- Erbring, *H.* See Ostwald, *W. O.*
- Ercoli, *A.* See Contardi, *A.*
- Erculisse, *P.*, possible corrosion of iron in ferroconcrete by blast-furnace cement, B., 965. and Saggir, *S.*, chemical constitution of hydrated calcium luminates, A., 1020.
- Erdey-Grütz, *T.*, and Wick, *H.*, hydrogen over-voltage, A., 29. Discharge voltage of mercury on foreign electrodes, A., 29.
- Erdheim, *E.*, determination of adsorptive power of activated charcoal for methylene-blue and iodine from aqueous solutions, A., 221. Precipitation and determination of calcium in the presence of Ag, Hg, Pb, Cu, Bi, Cd, As, Sb, Sn, Co, Ni, Fe, Al, Mn, and Zn, A., 364. Determination of sulphuric acid in the presence of ferric and aluminium sulphates, A., 477.
- Erdős, *A.* See Schmid, *L.*
- Erdtman, *H.*, dehydrogenations in the coniferyl series. I. Dehydrodiuegenol and dehydrodiisoeugenol. II. Dehydrodiisoeugenol, A., 390, 818. Dehydrogenation of phenols. III. Transition from the dibenzyl to the phenanthrene series by dehydrogenation, A., 1046.
- Eremeev, *M. A.*, Kobeko, *P. P.*, Kurohatov, *B. V.*, and Kurohatov, *I. V.*, electrical structure of crystals of Rochelle salt with admixture of sodium rubidium tartrates and sodium thallium tartrates, A., 765.
- Eremeeva, *O.* See Vanscheidt, *A.*
- Erf, *O.*, paper, (P.), B., 14.
- Erickson, *A. N.*, and Union Carbide Co., Apparatus for detection and determination of inflammable gases in air, (P.), B., 689. Detecting presence of inflammable constituents in gas mixtures [containing oxygen], (P.), B., 820.
- Erickson, *E. R.* See Post, *H. W.*
- Eriksen, *E. T.* See Wells, *R. C.*
- Erickson, *I.* See Rhodes, *F. H.*
- Erickson, *J. A.*, and Viking Manufg. Co., coal binder and method of applying same, (P.), B., 820.
- Erie City Iron Works. See Eklund, *J.*
- Eriksson, *I. B.* See Svedberg, *T.*
- Erimeseu, *P.*, DK apparatus for rapid determination of water [in coal], B., 496.
- Erlam, *M. S. S.* See Bolliger, *A.*
- Erlanger, *A. L.*, Wadewitz, *M.*, and Amer. Glanzstoff Corp., [preparation of] fabric from artificial threads, (P.), B., 264.
- Erlenmeyer, *H.*, and Berger, *E.*, relationship between structure of antigens and specificity of antibodies. II. and V., A., 175, 846.
- Berger, *E.*, and Leo, *M.*, relationship between structure of antigens and specificity of antibodies. VII., A., 834. and Leo, *M.*,  $\psi$ -atoms and isosteric compounds. I. and II., A., 557, 1286. See also Berger, *E.*
- Erlor, *W.* See Le Blanc, *M.*
- Ermakov, *A. I.* See Ivanov, *N. N.*
- Ermen, *W. F. A.*, byways of [fabric] printing, B., 425. See also Imperial Chem. Industries.

- Ernould, H., effect of acetylcholine on the carbohydrate metabolism; blood-sugar; muscle-glycogen, A., 421.  
See also Hoet, J.
- Ernst, T., preparation and crystal structure of lithium hydroxide, A., 341.
- Erofeev, B. V. See Semenschenko, V. K.
- Eropkin, D. J., ozone in the atmospheres of planets, A., 587.
- Erren, R. A., and Campbell, W. H., hydrogen: a commercial fuel for internal-combustion engines, B., 737.
- Errera, J., dispersion of Hertz waves in solvated colloids, A., 348.  
and Brasseur, H., ionic polarisation in crystals, A., 663. Dielectric constants and water of crystallisation of alums, A., 1000.  
and Hirschberg, Y., potentiometric analysis of pure animal proteins, A., 843.
- Erleben, H. See Kögl, F.
- Erz- & Kohle Flotation G.m.b.H., separation of fusain from remaining components of coal by flotation, (P.), B., 419.
- Esau, P., and Gruess, W. V., yeasts causing "souring" of dried prunes and dates, B., 444.
- Eseh, W., are hot-vulcanised dipped rubber goods injurious to health? B., 641.
- Eschenbrenner, H., sterilisation of sodium bicarbonate solution [for injections], B., 684.  
and Gärtner, R., improved manufacture of tinctures, B., 284.
- Escher, H. H., detection of carbon dioxide during autoxidation of carotenoids, A., 80. Preparation of intact total phosphatide-cerebroside, A., 1183.
- Escher Wyss Maschinenfabriken Akt.-Ges., apparatus for evaporating solutions and particularly for obtaining salt, (P.), B., 336. Apparatus for concentrating solutions by circulation, (P.), B., 736.
- Escherich, G. See Dittley, W.
- Esculies, J. See Varela, B.
- Eser, G. See Engelhardt, V.
- Eskin, L. T. See Kirkhof, G.
- Esmond, L. B., Duecker, W. W., and Essex Gelatine Co., preparation of edible emulsions of solid in fat, (P.), B., 938.
- Espe, D. L. See Cannon, C. Y.
- Ess, P. R. van. See Gilman, H.
- Esselen, G. J., jun., and Fiberloid Corp., recovery of camphor [from pyroxylin plastic compositions], (P.), B., 664.
- Essential Oil Sub-Committee, determination of citronellal, B., 123.
- Esser, A., and Kühn, A., fate of "cardiazol" in man, A., 977.
- Esser, H., Averdick, R., and Grass, W., heat content of some metals, alloys, and slag-forming materials at temperatures up to [about] 1200°, B., 232.  
and Cornelius, H., [micrographic] examination of structure [of steel] at temperatures up to 1100°, B., 790. Influence of strong magnetic fields on hardening of metals and alloys, A., 1238. Effect of hydrogen on the A3 and A1 transformations of iron, B., 1058.
- Eilender, W., and Spenlé, E., hardening diagram of iron-carbon alloys, B., 430.  
and Engelhardt, E., structure of quenched carbon steel, B., 429.  
and Grass, W., heat effect of the austenite-pearlite transformation, A., 455. Calorimeter with high-frequency measurement of heat expansion of metal block into which specimen is dropped, B., 396.
- Esser, H., and Müller, G., lattice constants of pure iron and iron-carbon alloys at temperatures up to 1100°, A., 1234.
- Esser & Co., G.m.b.H., E., and Winkler, A., production of articles from materials including synthetic resin, (P.), B., 722.
- Essex, J. L. See Morrell, J. C.
- Essex Gelatine Co. See Esmond, L. B.
- Essig, S. F., mercury-sealed gas valve, A., 249.
- Essin, O., theory of simultaneous discharge of several ionic species at the same electrode, A., 468. Theory of over-voltage, A., 1122.  
and Alfimova, E., theory of electrolytic formation of sodium persulphate, A., 34.  
and Balabai, A., electrolytic scaling of transformer steel, B., 968.
- Estermann, I., Frisch, R., and Stern, O., magnetic moment of the proton, A., 996.  
and Stern, O., magnetic deviation of hydrogen molecules and magnetic moment of the proton. II., A., 996. Intensity measurements of molecular rays, A., 1098. Magnetic deviation of isotopic hydrogen molecules and the magnetic moment of the "douton," A., 1226.  
and Wohlwill, M., investigation of dipole moments with molecular rays, A., 447.
- Estes, G. P. See Jennings, J. B.
- Estradère, (Mlle.), oxidation of hydrocarbons, A., 484.
- Établissements J. J. Carnaud & Forges de Basseindre, preparation and preservation of bread or other similar baked products, (P.), B., 890.
- Etchells, J. L. See Devereux, E. D., and Fabian, F. W.
- Etcheverry, M. A., determination of bile acids, A., 299.
- Etheridge, W. See Key, A.
- Étienne, R., displacement of equilibrium by variation of mass, A., 783. Displacement of equilibrium by variation of mass, A., 904. Displacement of equilibrium at constant volume, A., 1244.
- Ettel, V., identity of volemitol ( $\alpha$ -sedoheptitol) and  $\beta$ -D-mannoheptitol, A., 47. Configuration of sedoheptose, A., 54.
- Etten, C. van. See Du Vigneaud, V.
- Ettisch, G., and Schulz, G. V., action of ether and alcohol on solid protein, A., 620. Pulsating character of reactions between proteins and alkali, A., 788.  
See also Schulz, G. V.
- Ettlinger, R., and Ettlinger Casaks Mannfg. Co., sausage casing, (P.), B., 731.
- Ettlinger Casaks Manufacturing Co. See Ettlinger, R.
- Etzel, G. See Du Pont de Nemours & Co., E. I., and Henke, C. O.
- Etzrodt, A., new photo-electric phenomenon, A., 555.  
See also Büchner, A.
- Etzrodt, (Miss) H. See Feist, K.
- Eucken, A., and Becker, Richard, investigation of transformation of translational into vibrational energy on collision of various molecules by means of sound dispersion measurements, A., 554.  
and Bratzler, K., high-capacity hydrogen electrodes, A., 689.  
and D'Or, L., molecular heat of gaseous nitric oxide at low temperatures, A., 117.
- Eucken, A., and Parts, A., molecular heats and natural frequencies of ethane and ethylene, A., 453.  
See also Franck, J.
- Euler, B. von, and Euler, H. von, vitamin-C in sea fish and invertebrates, A., 1090.
- Euler, H. von, biochemical and physiological action of carotene and vitamin-A, A., 431. Reduction experiments with vitamin-C and carbohydrate derivatives, A., 646.  
and Ahlström, L., condensation of isoprene, A., 693.  
and Burström, D., arginine content of chlorophyll-defective leaves, A., 545.
- Burström, D., and Hellström, H., Folin-Denis and naphtharsoreinol reagents, A., 173. Chlorophyll content of leaves of barley mutants, A., 989.
- Burström, D., Hellström, H., and Köhler, B. von, chlorophyll mutants of barley, A., 103.  
and Enderlein, R., oxygen consumption of animal tissues following administration of thyroxine, A., 754.  
and Günther, G., enzyme action and enzyme formation in living cells, A., 1201.  
and Hellström, H., indole derivatives from two chlorophyll mutants of barley strains, A., 877. A lyochrome from ova of *Myxine glutinosa*, A., 1067. Carotene in the retina and probable relationship between carotenoid deficiency and night blindness, A., 1184.
- Hellström, H., and Klusmann, E., two vitamin-E fractions, A., 873.
- Hellström, H., and Malmberg, M., salmonic acid, a carotenoid of the salmon, A., 1067.
- Hellström, H., Pulkki, L., and Burström, D., hormones and growth-promoting substances, A., 755.  
and Klusmann, E., rôle of carotenoids in the animal body, A., 195. Carotene (vitamin-A) and thyroxine, A., 195. Vitamin-C; reaction of plant and animal extracts with 2:6-dichlorophenol-indophenol, A., 325, 433. Reduction of methylene blue by products of alkaline fission of sugars, A., 680. Highly reducing intermediates (reductones) in the alkaline rearrangement of simple sugars, A., 699. Reduction by sugar derivatives, A., 699. Vitamin-A, thyroxine, and oestrin, A., 755. Vitamin-C and sugar derivatives, A., 756. Physiological experiments on vitamin-C (ascorbic acid) and reductone (enol-tartronaldehyde), A., 873. Biochemistry of carotenoids and of vitamin-C (ascorbic acid), A., 1213.
- and Malm, M., vitamin-C and related substances, A., 756.  
and Martius, C., highly reducing sugar derivative (reductone), A., 596. Gluco-reductone, A., 699. Reductone (enol-tartronaldehyde) and ascorbic acid, A., 937.
- Myrbäck, K., and Larsson, H., oxygen uptake by organs containing vitamin-C and by gluco-reductone, A., 756.  
and Sjöman, B., hydrolysis of dipeptides in germinating chlorophyll mutants of barley, A., 1214.
- Zondek, B., and Klusmann, E., carotenoids, vitamin-E, and sex hormones, A., 757.  
See also Euler, B. von, Karrer, P., and Myrbäck, K.

- Euler, U. S. von, spectrophotometric determinations of adrenaline in extracts of adrenal glands, A., 642. Determination of adrenaline and thyroxine in blood, A., 986. Thyroxine and tissue oxidation, A., 1208. and Holmquist, A. G., thyroxine content of blood during hyperthyroidism, A., 973.
- Eurich, R. H. See Reinhardt, G. A.
- Eury, J., detection and determination of antipyrine in pyrimidone, B., 411.
- Eusterman, G. B. See Vanzant, F. R.
- Eustis, F. A., analysis of refrigeration-grade liquid sulphur dioxide; official method of the Sulphur Dioxide Committee, Compressed Gas Manufacturers' Association, B., 384.
- Eustis, R. S. See Bunker, J. W. M.
- Evans, A., physical properties of mixtures of bitumen and finely-divided mineral matter, B., 307.
- Evans, A. F. See Shirrefs, H. K.
- Evans, B. J. R. See Imperial Chem. Industries.
- Evans, B. S., arsenic distillation apparatus without ground-glass connexions, A., 926. Analysis of lead alloys, B., 871.
- Evans, Claire, and Goodrich, F. J., Washington belladonna and methods of assay, B., 1036.
- Evans, Courtenay, toxic effects of large amounts of sugar in blood, A., 422.
- Evans, C. L. See King, R. M.
- Evans, C. R., germination behaviour of *Magnolia grandiflora*, A., 1091.
- Evans, D. J., [lead-in device for] electrolytic cells [for decomposition of brine], (P.), B., 476.
- Evans, D. N. See Geller, R. F.
- Evans, E. B. See Garner, Frederick Horace.
- Evans, E. J. See Beanland, A. de M., and Thomas, W. R.
- Evans, F. L. See Tanner, F. W.
- Evans, H. See Thoday, D.
- Evans, H. M., and Lepkovsky, S., vital need of the body for unsaturated fatty acids. III. Inability of the rat organism to synthesise the essential unsaturated fatty acids, A., 306. Sparing action of fat on vitamin-B. IV. Is it necessary for fat to interact with vitamin-B in the alimentary canal to exert its sparing effect? V. Role of glycerides of oleic acid, A., 324.
- Simpson, M. E., and Austin, P. R., pituitary substance giving increased gonadotropic effects when combined with prolactin, A., 1086.
- Evans, J. E., enzymes for textile purposes, B., 863.
- Evans, J. G. See Lawrie, L. G.
- Evans, J. M., treatment of petroleum emulsions, (P.), B., 259.
- Evans, J. T. See Reid, A.
- Evans, J. W., control of *Thrips imuginis*, Bagnall, B., 727.
- See also Fetzner, W. R.
- Evans, M. G., unimolecular reaction velocity, A., 129.
- Evans, R. C., equilibrium of atoms and ions adsorbed on a metal surface, A., 203. Positive ion work function of tungsten for alkali metals, A., 442.
- Evans, R. D., technique for determination of radioactive content of liquids, A., 583. Direct fusion method for determining radium content of rocks, A., 584.
- Evans, R. E. See Woodman, H. E.
- Evans, R. N., combustion apparatus, A., 248.
- Evans, R. W. See Hurd, L. C.
- Evans, S. F. See Curtis, W. E.
- Evans, T. See Bataafsche Petroleum Maats.
- Evans, T. A., reagent feeder, (P.), B., 770.
- Evans, U. R., and Borgmann, C. W., effect of oxygen pressure on corrosion of steel, B., 64.
- See also Britton, S. C.
- Evans, W. D., and Critchfield, C. L., effects of atmospheric moisture on physical properties of vegetable- and chrome-tanned calf leathers, B., 931.
- Evans, W. V., and Lee, F. H., conductivity of Grignard reagents in ether solutions, A., 571.
- Evans Lead Co. See Rowley, W. H.
- Evard, F., organic molecular compounds of titanium tetrachloride, A., 1052.
- Eveking, W. See Hess, K.
- Eveland, S. S., method of mulching, (P.), B., 567.
- Eveleth, M. W., Bing, F. C., and Myers, V. C., nutritional anaemia of the rat. VII. Parentally administered iron, A., 970.
- Eventova, M. S. See Zelinski, N. D.
- Everdingen, W. A. G. van, value of determinations of vitamin-A by the reaction of Carr and Price, A., 540.
- Evering, B. L. See Rice, F. O.
- Everitt, E. L. See Anderson, A. K.
- Evers, F., and Schmidt, Rolf, artificial ageing of mineral oils, B., 292.
- Evers, N., sample of castor oil 135 years old, B., 28.
- See also Barker, J. H., and Eastland, C. J.
- Evers, W. L. See Whitmore, F. C.
- Evers, W. R., Rothrock, H. S., Woodburn, H. M., Stahly, E. E., and Whitmore, F. C., hydrolysis and rearrangement of olefine dibromides containing a tertiary bromine, A., 485.
- Eversole, W. G., and Dedrick, D. S., interfacial tension of mineral oil against various aqueous solutions at 40°, A., 775.
- Everts, W. W. C., influence of time on elongation of soft rubber under constant load, B., 480.
- Evison, W. E., monochlorination of *m*-nitrotoluene, A., 1152.
- Evjen, H. M., heteropolar crystals, A., 1105. Analysis of Slater's compressibility data, A., 1109.
- Ewald, L. See Ziegler, K.
- Ewan, T. See Imperial Chem. Industries.
- Ewart, A. J., citrinin in *Crotalaria crispata*, F. v. M., A., 1344.
- Ewbank, E. K. See Reifenberg, A.
- Ewe, G. E., vitamin potency of Lofoten (Norwegian) cod-liver oils, A., 195. Significance of stearin content of cod-liver oil, B., 354. Effects of heat on chloramine-T, U.S.P., B., 732.
- Ewer, F., bromine content of human blood, A., 846.
- Ewert, B., determination of cholesterol, A., 1094.
- Ewig-Daues, K., high-quality hard copper alloys, B., 66.
- Ewing, C. See Maas, J. H.
- Ewing, C. R., Montgomery, T., and Standard Oil Development Co., distillation of oil, (P.), B., 854.
- Ewing, D. T., electrodeposition of metallic chromium; chromium-plating process, (P.), B., 396.
- Ewing, M. E., collection and preservation of small blood samples for glucose determinations, A., 845.
- Ewing, W. W., and Rogers, A. N., calcium nitrate. IV. Heats of dilution of solutions of calcium nitrate in water, A., 1119.
- Exline, P. G. See Blackwood, O. H.
- Exolon Co. See Walton, S. F.
- Exton, W. G., electro-optical method and means for measuring substances for concentrations, colours, dispersions, etc., (P.), B., 636.
- Eyber, G. See Stock, A.
- Eyckerman, J., micro-determination of iodine in blood and other fluid, A., 1094.
- Eyer, H. See Freudenberg, K.
- Eyermann, W. H. See Schramm, O.
- Eynon, D. J., recovery of caustic soda solutions containing hemicellulose using Cerini dialysers, B., 587.
- Eyre, J. V., and Davis, W. A., discontinuity of hydration processes. II. Enzyme action, A., 424.
- Eyring, H., zero-point energy and the separation of isotopes, A., 333. Quantum mechanics and chemistry with particular reference to reactions involving conjugate double linkings, A., 450. Resultant electric moment of complex molecules, A., 1103.
- and Kassel, L. S., homogeneous reaction between hydrogen and fluorine, A., 909.
- See also Kimball, G. E., and Taylor, H. S.
- Ezrielev, I. M., and Magldov, S. S., determination of camphene in pine oil, B., 333.

## F.

- Faas, H. R. See Wirshing, R. J.
- Fabbrani, G. See Semerano, G.
- Fabbri, A., effect of irrigation on composition of maize corn, B., 487.
- See also Draghetti, A.
- Faber, H. A. See Romanoff, A. L.
- Faber, H. K., and Brown, D. M., serum-proteins and -lipins in infantile eczema, A., 415.
- Faber, W., niccolite, A., 451. Reflecting power and double reflexion of niccolite, A., 769. Crystal and optical properties of aromatic fluorine compounds, A., 1108.
- Fabian, F. W., grape-juice spoilage due to faulty pasteurisation, B., 364.
- and Bryan, C. S., influence of cations on bacterial sporogenesis in a liquid medium, A., 638.
- Bryan, C. S., and Etchells, J. L., cucumber fermentation, B., 282.
- Fabianae, W. L., colour in ceramics; methods in brick and tile trades, B., 347.
- and Stolte, N. H., mineralogy of typical North Carolina clays and shales, A., 252.
- Fabiola, P., absorption and elimination of sodium  $\alpha$ -pyrroleazo-*p*-phenylarsinate, A., 859.
- Fabisch, W., enzymic ester synthesis in emulsions, A., 635.
- Fabre, P., theory of muscular contraction, A., 742.

- Fabre, R., and Kahane, E., applications of the  $\text{H}_2\text{SO}_4\text{--HNO}_3\text{--HClO}_4$  method of destroying organic matter, A., 546.  
and Lederer, E., astacene in crustacea, A., 1183.
- Fabrikant, V. A., Ginsburg, V. L., and Pulver, V. L., diffusion of light in highly turbid media, A., 553.
- Fabriques de Produits de Chimie Organique de Laire, and Armenault, R., urea-formaldehyde condensation products and artificial materials therefrom, (P.), B., 238.
- Fabris, A., adsorbing power of soil for pyrophosphoric acid, A., 458.
- Fabris, E., solubility of potassium ferrocyanide, A., 345.  
See also Bovolanti, E.
- Fabritziev, B., and Shabanova, R., scorching of [rubber containing] different accelerators, B., 1022.
- Fabrykant, M. See Labbé, M.
- Fadda, P., Raman effect of the ions  $\text{SO}_4^{--}$  and  $\text{SO}_3^{--}$  and electrolytic dissociation of sulphuric and sulphurous acids, A., 337. Existence of  $\text{NaHSO}_3$  in solution, A., 998.
- Färber, E., and Holzhydrolyse A.-G., saccharification of vegetable material containing pentosans, (P.), B., 246.  
See also Bergius, F., and Holzhydrolyse A.-G.
- Faessler, A. See Goetz, A.
- Fahlenbrach, H., interpretation of Weiss' law, A., 340.  
See also Cabrera, B.
- Fahr, R. See I. G. Farbenind.
- Fahrenwald, F. A., electric furnace resistor element, (P.), B., 25.
- Failey, C. F., solubility of thallous iodate in solutions of sodium mellitate [at  $25^\circ$ ], A., 1008.  
and Brand, E., electrometric titration of creatine ester hydrochloride and some related compounds, A., 1248.
- Fain, J. M. See Hixson, A. W.
- Fairall, H. K., Crespinal, W. T., and Multicolor, Ltd., production of a colour positive for use in a coloured motion picture, (P.), B., 1037.
- Fairbairn, G. C., and Texas Co., viscosimeter, (P.), B., 449.
- Fairbrother, F., determination of electric moment in solution by the temperature coefficient method. I. Experimental method and the electric moment of benzyl compounds, A., 1231.
- Fairchild, J. G. See Schaller, W. T., and Wells, R. C.
- Fairchild, O. H., and Universal Oil Products Co., hydrocarbon oil conversion, (P.), B., 854.
- Fairhall, L. T., accuracy of lead analyses, A., 1133.  
and Heim, J. W., rapid micro-determination of chlorides in fluids, A., 477. Possible health hazard of lead-weighted silk fabric, B., 15.  
and Howard, R. G., general method of quantitative microchemical analysis. I. Determination of calcium, A., 922.
- Fairweather, D. A. W. See Imperial Chem. Industries.
- Faitelowitz, A., and Lippmann, L. M., extracting nicotine from tobacco, (P.), B., 652.
- Faith, W. L., Swann, S., jun., and Keyes, D. B., catalytic vapour-phase oxidation of tetra-alkylmethanes, A., 370.
- Falck, J. See Bomskov, C.
- Falck, R., preservation of wood, straw, etc., (P.), B., 308.  
Schoeller, W., and Michael, S., acid formation by moulds, A., 983.
- Falconer, J. G., Wright, J. W., and Beall, H. W., decomposition of types of forest litter under field conditions, B., 562.
- Falconer, S. A., Christmann, L. J., and Amer. Cyanamid Co., recovery of [heavy metals from] oxidised ores [by flotation], (P.), B., 311.  
See also Christmann, L. J.
- Falcsik-Szabó, E. See Jendrassik, L.
- Falkenhagen, H., and Fischer, W., electrostatic theory of the dependence on frequency of ionic mobility and dielectric constant in mixed solutions of strong electrolytes. I. II. Generalisation of the Böttcher-Wagner-Köhler calculation for the non-stationary state, A., 8, 908. Dependence of electrical conductances and dielectric constant on frequency in mixtures of strong electrolytes, A., 114. Theory of non-stationary phenomena in electrolytes and problems relating to electrolytes, A., 1243.
- Falkenthal, E., light-reactive cells, (P.), B., 113.  
and Radio Patents Corp., electromagnetic apparatus, (P.), B., 636.
- Fallon, J. See Smallwood, A.
- Fallows, L. See Brit. Celanese.
- Falta, W., and Boller, R., glucose equivalent of insulin, A., 628.
- Falter, O. H., and Amer. Cyanamid Co., ammonia [from cyanamide], (P.), B., 964.
- Faltis, F., constitution of tetrandrine and trilobine, A., 171.
- Famiani, V., nutritive value of wheat embryos, A., 183. Capacity for food consumption after fasting, A., 306. Reconstructive food value of embryos of various cereal and leguminous seeds, A., 309.  
and Zagami, V., comparison between reconstructive food values of vegetables and of grain, A., 89.  
See also Amantea, G., and Zagami, V.
- Fancher, G. H., and Lewis, J. A., flow of simple fluids through porous materials, B., 991.
- Fang, E. H. C. See Peterson, C. J.
- Fang, H. C., utilisation of xylose, A., 147.
- Fanica, action of heat on resin acids, A., 1165.
- Fansteel Products Co., Inc. See Austin, M. M., and Engle, E. W.
- Fanto, E. C., and McKesson & Robbins, Inc., *n*-heptylphenol, (P.), B., 219. Preparation of [*n*-]heptaldehyde, (P.), B., 999.
- Fantozzi, F. See Calabro, Q.
- Faragher, W. F., and Universal Oil Products Co., catalysts [finely-divided metals for hydrogenating oils], (P.), B., 511.
- Faraschjan, S. P., and Tsekinovska, R. M., preparation of superphosphate from Schtschigrov phosphorite and from its mixtures with Podolian phosphorite or with apatite concentrates, B., 305.  
See also Teletov, I. S.
- Farastan Co. See Ebert, J.
- Farbridge, J. R., apparatus for drying tea or other vegetable, animal, or mineral substances, (P.), B., 255.
- Farden, C. A., and Magistad, O. C., yield equation in pineapple culture, B., 244.
- Fári, L. See Hoffmann, Alexander.
- Faria, L., analysis of sugars, B., 486.
- Farineau, J. See Bloch, L.
- Farinholt, L. H., Harden, W. C., and Twiss, D., preparation of cryptophenols, A., 1045.
- Farkas, A., micro-determination of concentration of mixtures of ortho- and para-hydrogen, A., 1260.  
and Rowley, H. H., loss of heat by and temperature distribution in electrically heated wires, A., 1236.  
See also Bonhoeffer, K. F.
- Farkas, G., determination of gelatin, A., 1184.  
and Thanhofer, L. von, fat absorption, A., 974.
- Farkas, Gustave, sizing of acetate rayon, B., 143.
- Farkas, L., photochemical reactions in solution, A., 1255.  
and Levy, S., measurements of intensity distribution and width of predissociation lines of the  $\text{AlH}$  molecule, A., 879.  
and Sachsse, H., homogeneous catalysis of the para-ortho-hydrogen transformation by paramagnetic substances, A., 574. Homogeneous catalysis of para-ortho-hydrogen transformation under influence of paramagnetic molecules. I. and II., A., 1251.
- Farlow, M. W. See Hoffman, A.
- Farmer, C. J., Barry, F. S., Reed, A., and Ivy, A. C., experimental edema in nephrectomised dogs, A., 740.  
See also Lewis, Burns.
- Farmer, E. H., and Galley, R. A. E., catalytic hydrogenation of olefinic compounds, A., 257. Catalytic hydrogenation of unsaturated compounds. I. Additive mood in relation to selectivity of attack and catalyst activity, A., 935.  
and Hose, C. G. B., reactions of olefinic compounds. III. Orienting influence of Ph group, A., 1048.
- and Martin, S. R. W., properties of conjugated compounds. XIX. Michael reaction applied to a triene ester, A., 1035.  
and Wallis, N. J. H., electric moments of cyclic 1:1-dicarboxylic esters in relation to the valency-deflexion hypothesis, A., 1230.
- and Warren, F. L., properties of conjugated compounds. XVI. Dipole moments and atomic polarisation of the monomethyl- and dimethyl-butadienes. XVII. Determination of the dipole moments of monomethyl- and dimethyl-butadienes, A., 1230.  
See also Bloomfield, G. F.
- Farmer, R. S. See Michaelian, M. B.
- Farnham, E. C. See Bancroft, W. D.
- Farnham, G. S. See Hardy, T. W., and O'Neill, H.
- Farnsworth, H. E., fine structure of electron diffraction beams from a gold crystal and from a silver film on a gold crystal, A., 761.  
and Rose, B. A., contact potential differences between different faces of copper single crystals, A., 1004.
- Farooq, M. O., and Hunter, R. F., formation and stability of polybromide derivatives of heterocyclic compounds. I. Bromination of diphenyl- $\psi$ -thiohydantoin and its *o*-tolyl homologue, A., 284.

- Farooq, *M. O.*, Hunter, *R. F.*, and Jaffery, *S. T. H.*, formation and stability of polybromide derivatives of heterocyclic compounds. II. Polybromide ion derivatives of alkylaminobenzthiazoles obtained from *s*-phenylalkylthiocarbamides and bromine, and a comparison of the case of nuclear substitution by bromine in 1-alkylaminobenzthiazolium and 1-imino-2-alkyl-1:2-dihydrobenzthiazolium ions, *A.*, 960.
- Farquharson, *J.*, diamagnetic susceptibilities of sulphur compounds, *A.*, 11.
- Farquharson, *R. F.* See Salter, *W. T.*
- Farr, *E.* See Lorch, *K., jun.*
- Farr, *F. C.* See Dawbarn, *M. C.*
- Farr, *S. M.*, *Lactobacillus acidophilus* milk product and its manufacture, *B.*, 123.
- Farrán, *M.* See Pi-Suñer, *A.*
- Farrar, *M. D.*, and Flint, *W. P.*, chemically treated [fruit tree] bands, *B.*, 640.
- Farrell, *M. A.*, use of anthracite coal as a filter medium [in waterworks' practice], *B.*, 606.
- Farrington, *B. B.* See Hampton, *W. B.*
- Farrington, *F.* See Bleachers' Assoc.
- Fash, *R. H.*, cooking cottonseed meats containing high moisture, *B.*, 876.
- Fashena, *G. J.*, saccharoid fraction of human blood, *A.*, 521.
- Fasold, *H.*,  $\alpha$ -oxidation of fatty acids, *A.*, 1073.  
See also Beumer, *H.*
- Fassin, *G.*, new type of spectrographic slit, *A.*, 689.
- Fasting, *J. S.*, rotary [cement] kilns and coolers, (*P.*), *B.*, 148. Rotary kilns, cooling and drying drums, (*P.*), *B.*, 368.
- Fastré, *P.*, measurement of reflecting powers of natural tellurides by the photo-electric method, *A.*, 369.
- Fatejev, *L. M.* See Zelinski, *N. D.*
- Fattinger, *F.*, Haas, *O.*, and Treibacher Chem. Werke A.-G., radioactive artificial fibres, (*P.*), *B.*, 543.
- Faudemay, *P.* See Janot, *M. M.*
- Faulhaber, *R.*, Buchholtz, *H.*, and Schulz, *E. H.*, influence of diameter of specimen on endurance limit of steel in rotating bending test, *B.*, 1059.
- Faull, *J. H.* See Forbes, *G. S.*
- Fauner, *J.*, refractory material for cement rotary kilns, *B.*, 466.
- Faurholt, *C.*, and Jespersen, *I. C.*, mono-alkyl carbonates. V. Mono-*n*-propyl carbonate, *A.*, 932.
- Fauroux, *P.* See Mousseron, *M.*
- Fausser, *G.*, ammonium fertilisers, *B.*, 35.
- Faust, *C. L.* See Stout, *L. E.*
- Faust, *O.*, spinning process in preparation of artificial silk; properties of technical spinning solutions, *B.*, 300. Spinning of artificial silk, (*P.*), *B.*, 699.  
See also Zellstofffabr. Waldhof.
- Fauveau, *J.*, and Le Paire, muzzle-flash suppression; thermodynamic action of alkali salts, *B.*, 573.
- Favarger, *P.* See Paillard, *H.*
- Favejee, *J. C. L.* See Kolkmeijer, *N. H.*
- Favorski, *A. E.*, and Nazarov, *J. N.*, existence of metal ketyls in the aliphatic series, *A.*, 702.
- Fawns, *H. T.*, and Jung, *Albert*, mineral content of the skin of rats suffering from beriberi: formation of vitamin-*B*<sub>1</sub> by moulds, *A.*, 872.
- Fawsitt, *C. E.*, viscosity measurements of liquids by oscillating-disc method, *A.*, 249.
- Fawthrop, *W. D.*, adhesives, (*P.*), *B.*, 981.
- Fayerweather, *B. L.* See Huston, *R. C.*
- Fayt, (*Mlle.*) *M.* See De Hemptinne, *M.*
- Fazikas, *J. F.* See Himwich, *H. E.*
- Feacham, *C. G. P.*, and Rideal, *E. K.*, instability of thick films of insoluble oils on water, *A.*, 222.
- Fearon, *W. R.*, classification of the biological elements; biochemistry of beryllium, *A.*, 1184.
- Feather, *N.*, collisions of  $\alpha$ -particles with fluorine nuclei, *A.*, 883.
- Featherstone, *J.*, effect of lime on pastures, *B.*, 241.
- Fedchenko, *B. N.* See Palkin, *A. P.*
- Federal Laboratories, Inc. See Oglesby, *N. E.*
- Federal Milk Co. See Voorhies, *G. B.*
- Federated Metals Corporation. See Rossman, *K. V. B.*
- Fedorova, *A. N.* See Karpov, *B. G.*
- Fedorov, *P. P.* See Gutman, *S. M.*
- Fedorov, *V.*, and Trofimov, *N.*, stability of hard alloys, *B.*, 66.
- Fedorova, *A. M.* See Kanevskaja, *S. J.*, and Rodionov, *V. M.*
- Fedorova, *M. S.* See Kitaigorodski, *I. I.*
- Fedorova, *O. S.*, microscopical determination of perchlorate, *A.*, 1260.  
See also Pamfilov, *A. V.*
- Fedotov, *N.* See Burstein, *R.*
- Fedotov, *V.* See Arbusov, *B. A.*
- Fedotov, *V. S.*, search for alkaloid-free lupins, *A.*, 1093.
- Fedotova, *C.* See Virnik, *D.*
- Fehér, *D.*, use of electrometric  $p_H$  measurements for determining bacterial numbers in soils, *B.*, 1071.  
with Kiszely, *Z.*, microbiological basis of variations in soil acidity, *B.*, 201.
- Fehér, *G.* See Pollak, *Leo.*
- Fehlmann, *H. A.* See Poe, *C. F.*
- Fehr, *C. M.*, and Sterling Products Co., preparing a [jolly-like] detergent material, (*P.*), *B.*, 556.
- Fehre, *W.*, softening of water for laundries, *B.*, 46. Bleaching in strongly alkaline peroxide baths, *B.*, 545.
- Fehrle, *A.* See Streitwolf, *K.*
- Feibelman, *R.*, [oxidation] treatment of vegetable and animal fibres and fabrics, (*P.*), *B.*, 783.  
and Chem. Fabr. von Heyden A.-G., treating [carbonising] animal fibres, (*P.*), *B.*, 505. Bleaching agents, (*P.*), *B.*, 745.
- Feigl, *F.*, detection of ammonium salts by drop reactions, *A.*, 798. Drop reaction to detect free basic oxides in glass, *B.*, 749.  
and Fränkel, *E.*, test for iodides by catalytic reaction. I., *A.*, 135. Detection of hydrogen peroxide by means of spot reactions, *A.*, 362.
- Krumholz, *P.*, and Hamburg, *H.*, colorimetric determination of iron with 2:2'-dipyridyl, *A.*, 43.
- and Leitmeier, *H.*, drop test to distinguish calcite and aragonite, *A.*, 798.
- and Rajmann, *E.*, detection of fluorine by spot reactions, *A.*, 135.
- Feinberg, *H. I.* See Stillwell, *C. W.*
- Feinmann, *I.*, manufacture of resinous products by condensing aldehydes with other compounds such as urea or phenol, (*P.*), *B.*, 929.
- Feinschmidt, *O.*, and Dmitrenko, *M.*, transformation of the pyrophosphate fraction in muscle, *A.*, 1203.
- Feinstein, *H. L.*, and North, *E. O.*, night-blue as an indicator for use in volumetric titrations with silicotungstic acid, *A.*, 732.
- Feisst, *W.* See Fischer, *Franz.*
- Feist, *K.*, Awe, *W.*, and Etzrodt, (*Miss*) *H.*, homologues of berberine, *A.*, 289.  
and Hofmann, *R.*, behaviour of small quantities of urinary sugar with Nylander's reagent, *A.*, 525.
- Feistritzer, *W.* See Schmidt, *E. W.*
- Feit, *W.*, technical recovery of rhodium and gallium and some of their compounds, *B.*, 431.
- Feitknecht, *W.*, structure of  $\alpha$ -zinc hydroxide, *A.*, 214. Structure of basic salts of bivalent metals, *A.*, 664.
- Feldberg, *W.*, depressor action of stimulation of the chorda lingualis and influence of atropine, *A.*, 745.  
and Krayer, *O.*, appearance of an acetylcholine-like substance in the venous blood of the mammalian heart on stimulation of the vagus, *A.*, 1208.
- Felder, *D. H.* See Gardner, *E. W.*
- Feldhaus, *A.* See Bruchhausen, *F. von.*
- Feldman, *M.* See Friedenwald, *J.*
- Feldmann, *W.*, Stoecker, *J.*, and Eilender, *W.*, direct reduction tests with iron ore and sinter in the blast furnace, *B.*, 789.
- Feldmeier, *H.*, Wightman, *R. J.*, and Cherry-Burrell Corp., heating of liquids [e.g., pasteurising milk], (*P.*), *B.*, 369.  
Wightman, *R. J.*, Steves, *R. B.*, and Cherry-Burrell Corp., heat-exchange device, (*P.*), *B.*, 896.
- Feledy, *K.* See Perémy, *G.*
- Felix, *K.*, substances regulating circulation, *A.*, 745.  
Dirr, *K.*, and Hoff, *A.*, clupein. VI., *A.*, 80.  
and Frühwein, *H.*, fractionation of liver extracts in respect of the anti-anæmic substance, *A.*, 641.
- Hirohata, *R.*, and Dirr, *K.*, clupein. VII., *A.*, 963.  
and Kahlert, *O.*, globin, *A.*, 79.  
and Putzer-Reyberg, *A. von.*, physiological-chemical analysis of the depressor action of organ extracts. II., *A.*, 422. Substance, from organ extracts, which affects the circulatory system, *A.*, 868.
- Fell, *H. B.*, and Robison, *R.*, glycogen in cartilage, *A.*, 296.
- Fellenberg, *T. von.*, solubilising and determination of solubility of cocoa, *B.*, 90.  
and Krauze, *S.*, occurrence of benzoic acid in wine, *B.*, 89. Detection of [food] preservatives, *B.*, 170.  
and Ruffy, *J.*, polarimetric determination of sucrose in chocolate, *B.*, 41.
- Fellers, *C. R.*, nutritive value of cranberries, *A.*, 529.
- Cleveland, *M. M.*, and Clague, *J. A.*, vitamin-C content of Baldwin apples and apple products, *A.*, 1090.  
and Hills Bros. Co., treatment of dried [packaged] fruits, (*P.*), *B.*, 604.  
and Isham, *P. D.*, vitamin-C and -A in blueberries, *A.*, 1211. Vitamin-C in canned citrus fruits, *B.*, 123.  
and Mack, *M. J.*, vitamin-C content of strawberries and strawberry ice cream, *B.*, 987.  
See also Clague, *J. A.*, and Isham, *P. D.*
- Fells, *H. A.* See Halkett, *R.*
- Felsing, *W. A.*, and Biggs, *B. S.*, ionisation constants [at 25°] of methylated quinolines and of saturated bases isolated from petroleum distillates, *A.*, 1118.



- Felsing, W. A., and Buckley, S. E., distribution of methylamine between water and chloroform and existence of methylamine complexes of the metal-amine type, A., 898.
- Felter, J., coating composition, (P.), B., 879.
- Felton, G. E. See Freudenberg, W.
- Felton, L. D., active immunisation of white mice by a non-polysaccharide and probably non-protein derivative of the pneumococcus, A., 753. Correlation of protective value with titres of other antibodies in type I antipneumococcus serum, A., 867.
- Felzmann, C., explanation of processes in leather manufacture, B., 724.
- Feng, L. C. See Hoeppli, R.
- Fenn, H. N. See Bass, S. L.
- Fennell, R. C. G., and Plant, S. G. P., action of nitric acid on the 1-acyl-2,3-diphenylindoles, A., 164.
- Fenner, C., origin of tektites, A., 1268.
- Fenning, R. W., and Colton, F. T., bomb calorimeter determination of the heats of formation of nitrous oxide and carbon dioxide, A., 905.
- Fenske, M. R. See McCluer, W. B.
- Fenton, G. W., Hey, L., and Ingold, C. K., influence of poles and polar linkings on the course pursued by elimination reactions. XIX. Thermal decomposition of phosphonium chlorides, A., 1040.
- Ferber, K. E. See Richter, K.
- Ferdmann, D., chemistry of muscle-adenosinetriphosphoric acid; determination of muscle-adenosinetriphosphoric acid, A., 736.
- Feremutsch, P., conversion of milk and cream into butter, (P.), B., 1034.
- Ferguson, A., and Miller, J. T., determination of specific heats of liquids; specific heats of aniline and benzene over the approximate range 20–50°, A., 366.
- Ferguson, A. L., and Dubpernell, G., overvoltage. VI. Mechanism of the transfer of electrolytic hydrogen and oxygen through thin sheets of platinum and palladium, A., 1122.
- Ferguson, C. S. See Brit. Thomson-Houston Co., and Kienle, R. H.
- Ferguson, G. C. See Solandt, O. M.
- Ferguson, G. E. See Olsen, J. C.
- Ferguson, J. B., Freed, M., and Morris, A. C., system ethyl alcohol-*n*-heptane at 30°, A., 220.
- Ferguson, J. E. See Burroughs, R. E., and Lark-Horovitz, K.
- Ferguson, J. H., particle size of biological units, A., 191.  
See also Cox, G. J.
- Ferguson, R. H., and Richardson, A. S., middle soap, B., 155.
- Ferguson, R. S., behaviour of the anterior pituitary hormone in a case of teratoma testis, A., 1072.
- Ferguson, W. C., asphaltic cement, (P.), B., 660.
- Fermi, E., oscillation and rotation bands of ammonia, A., 6. Rotation-vibration bands of ammonia, A., 998.  
and Segré, E., theory of hyperfine structure, A., 759.
- Fernández, E. M. See Straub, W.
- Fernández, F., and Clavera, J. M., post-insulinic blood-sugar levels. I., A., 1070.
- Fernandez, F. M., determination of sucrose in final molasses, B., 325.
- Fernández, O., and De Mingo, M., application of Franchimont's method to determination of the composition of essential oils, B., 845.  
and Folch, R., detection of phosphatides in complex mixtures, B., 248.  
See also Folch, R.
- Fernbach, A., and Union Solvents Corp., acetono-butylic fermentation process, (P.), B., 167.
- Fernelius, W. C., and Watt, G. W., saponification of nitrosodiarylamines and attempts to prepare a salt of aquoammononitrous acid, A., 1044.
- Ferngren, E. T., and Libbey-Owens-Ford Glass Co., continuous tank furnace [for glass], (P.), B., 787.
- Fernholz, E., constitution of stigmasterol, A., 1290.  
See also Ahrens, G.
- Ferramola, R. See Vanossi, R.
- Ferrante, J., and Bloom, A., identification of carbonyl compounds by 2,4-dinitrophenylhydrazine, A., 1053.
- Ferrari, A., iridinonitrites of ammonium, potassium, rubidium, caesium, thallium, and barium, A., 1234.  
and Colla, C., cobaltinitrites of ammonium, potassium, rubidium, caesium, and thallium, A., 666. Crystalline form in the formation of solid solutions. IX. Thermal analysis of the anhydrous systems  $\text{CoCl}_2\text{-SnCl}_2$  and  $\text{FeCl}_2\text{-SnCl}_2$ . X. Thermal analysis of the anhydrous systems  $\text{CoCl}_2\text{-PbCl}_2$  and  $\text{FeCl}_2\text{-PbCl}_2$ , A., 676.  
and Curti, R., crystal structure of potassium hydrogen tartrate, A., 216. Nickel nitrites of bivalent metals, A., 1131.  
and Trampetti, G., behaviour of mixtures of zinc oxide and anhydrous zinc chloride at high temperatures, A., 228.
- Ferrari, C. G., spectrographic determination of carotenoid pigment content of wheat flour, B., 810.
- Ferrari, M. G. See Pieroni, A.
- Ferrari, R., and Höber, R., metabolism during secretion in liver, kidney, and salivary glands, A., 1193.
- Ferré, L., and Michel, A., colorimetric determination of ferrous and ferric salts in white wines, B., 281.
- Ferrey, G. J. W., determination of moisture in mercuric oxide, A., 1260.
- Ferris, S. W., and Atlantic Refining Co., treatment of hydrocarbon oils, (P.), B., 615. Extraction of mineral oils, (P.), B., 615.  
and Houghton, W. F., nitrobenzene [extraction] process for lubricating oils, B., 660.  
See also Henderson, L. M.
- Ferro Enamel Corporation. See McIntyre, G. H.
- Ferro-Luzzi, G., chlorine metabolism. I. Experimental hypochloremia and azotemia, A., 531.
- Ferry, J. D., and Thomas, S. B., heat capacity data for durenene, pentamethylbenzene, stilbene, and dibenzyl, A., 343.
- Fersman, A., rôle of ionic radii in soil science, B., 932.
- Féry, A., electrical properties of thin platinum films obtained by cathodic sputtering, A., 893. Electrical properties of thin platinum films obtained by cathodic sputtering in elementary gases, A., 893.
- Fescoll, Ltd., and Wilson, R. E., apparatus for electroplating [cylindrical articles with chromium], (P.), B., 715.
- Fesefeldt, H., absorption spectra of salts with halogenoid complex ions, A., 1102.
- Fester, G., and Bertuzzi, F., calcium arsenate, A., 916.
- Fester, G. A., peat formation, A., 1269. Theory of cracking, B., 738.
- Feszczenko-Czopiowski, J., and Wojcik, nitrogenisation of steel by ammonia, and ageing phenomena, B., 672.
- Fethke, N. See Machebœuf, M. A.
- Fetterolf, L. D., effect of zinc oxide on sheet-iron cover-enamel properties, B., 705.
- Fettsäure- & Glycerin-Fabrik G.m.b.H. See Kantorowicz, H.
- Fetzer, J., tunnel kiln, (P.), B., 788.
- Fetzer, W. R., Evans, J. W., and Longenecker, J. B., determination of dextrin, maltose, and dextrose [glucose] in corn syrup, B., 486.
- Fenerriegel, G. See Wrede, F.
- Feussner, O., quantitative spectrographic analysis, A., 800. Technique of spectrographic analysis, A., 920. Separation hardening (Aushärtung) [of metals], B., 511.
- Février, C., differentiation of liquorice juice of different origins and detection of adulterants, B., 1035.  
See also Casparis, P.
- Fialkow, J., and Stschigol, M., volumetric determination of alkali sulphates, A., 41. Determination of potassium guaiacolsulphonate in medicaments, B., 332.
- Fiberloid Corporation. See Esselen, G. J., jun., and Preston, A. C.
- Fical, C., and Luzzatti, C., production of bromides and bromine from brominated mother-liquors, B., 385.
- Fichoux, A., distillation and continuous rectification of musts from butyric fermentation, B., 281.
- Fichter, F., and Goldach, A., oxidations with fluorine. XIX. Action of fluorine on aqueous solutions of ammonia and of ammonium carbonate, A., 39.  
and Lurie, S., chemical and electrochemical oxidation of levulic and  $\epsilon$ -keto-*n*-octoic acids, A., 807.  
and Rosenzweig, J., electrochemical experiments with *p*-fluorotoluene and *p*-fluorobenzoic acid; di-*p*-fluorobenzoyl peroxide and its decomposition, A., 1152.  
and Stenzl, H., reductions with lead-sodium [alloys], A., 705.  
and Suenderhauf, H. E., oxidation of propionic acid and potassium propionate with persulphate, A., 488.
- Ficklen, J. B., and Cook, W. A., sensitivity of the pernitric acid reaction in detection of benzene, A., 495.  
See also Newell, J. L.
- Fidler, J. C., zymasis. IV. Accumulation of zymasic products in apples during senescence. V. Seasonal fluctuations in zymasis and carbon dioxide alcohol number ratios in apples in the absence of oxygen, A., 1341.  
See also Thomas, Meirion.
- Fiedler, E. F. See Brit. Thomson-Houston Co.
- Fiedler, H. See Noll, A.
- Fiedler, H. W., cosmetics, (P.), B., 124.
- Fiedler, J. See Brass, K.
- Fiedler, K. See Bosurgi, T.
- Field, A. See Morgan, A. F.

- Field, A. J., and Dickin, J. H., electrical conductivity of aluminium wire, B., 351.
- Field, A. M., Alexander, B. H., and Sylvanus, E. B., soya-bean paste as an emulsifying agent, A., 226.
- Field, J. F., mixing machine, (P.), B., 129.
- Field, J. T. See Poe, C. F.
- Field, M. C. See McBain, J. W., and Standard Telephones & Cables.
- Field, M. E. See White, J. C.
- Field, N. L. See Skinner, K. G.
- Field, S., throwing power [of electrolysis baths]; its quantitative expression, B., 593.
- Fielding, E. W. See Du Pont de Nemours & Co., E. I.
- Fields, J. D., refining of distillates, (P.), B., 535. Distillation of hydrocarbons and production of coke, (P.), B., 535. Cracking and coking, (P.), B., 535. Treatment [refining] of petroleum materials, (P.), B., 535.
- Fields Point Manufacturing Corporation. See Townend, D.
- Fiero, G. W., oil of ergot, B., 877.
- Fierz-David, H. E., constitution and classification of sulphur dyes, A., 168. See also Keller, E.
- Fieschi, A., chemical composition of heart muscle; water content, total nitrogen, total phosphorus, sterols, glycogen, and lipins (I) in normal and thyroidectomised animals; (II) in thyrotoxicosis; (III) after stimulation with adrenaline; (IV) in animals thyroidless or suffering from thyrotoxicosis, A., 740.
- Fieser, L. F., and Fieser, (Mrs.) M., synthesis of phthalolynaphthol, A., 950. Conversion of phthalolynaphthalenes and naphthoyl-2-benzoic acids into benzanthraquinones, A., 1053. and Peters, M. A., condensations and ring closures in the naphthalene series. III. *peri*[=3:4]-Succinylacnaphthene. IV. Synthesis of [8:9]-jacephenanthrene, A., 67.
- Fieser, (Mrs.) M. See Fieser, L. F.
- Fieessing, N., Albeaux-Fernet, M., and Gajdos, A., effect of pancreatotomy in the dog on blood-lipase content, A., 1189.
- and Cattani, R., effect of splenectomy and splenic extracts on blood-sugar in the dog, A., 430.
- and Gothie, S., effect of spleen extract on blood-sugar in man, A., 754.
- Herbain, M., and Lançon, R., passage of polypeptides through the liver, A., 528.
- Fifield, A. F., and Amer. Fork & Hoe Co., preparing the wearing surfaces for tools, dies, etc., (P.), B., 394.
- Figala, N. See Lindner, J.
- Figlmüller, J. K., representation of combustion equations of fuel oils in terms of sp. gr., B., 50. Refinery wastes as fuel oil, B., 418.
- Fikentscher, R., Fink, H., and Emminger, E., bones of growing mammals after injection of different porphyrins, A., 531.
- Filaudeau, G., proposed official International method for analysis of wines, B., 984.
- Filcakova, (Mlle.) D. See Doleisek, V.
- Fildes, P., Gladstone, G. P., and Knight, B. C. J. G., nitrogen and vitamin requirements of *B. typhosus*, A., 1333. See also Knight, B. C. J. G.
- Filhol, R. See Pien, J.
- Filipitschev, S. F., and Tschekalin, M. A., dyes from  $\alpha$ -naphthylamine-5-sulphonic acid, B., 422.
- Filippov, A., and Islamov, I., ratio of oscillator intensities for resonance lines of silver, A., 1095.
- and Prokofiev, W., transition probabilities in the subsidiary series of thallium, A., 1220.
- Filippov, A. N., anomalous dispersion of lithium vapour, A., 759.
- Filippova, A. G. See Rosanov, S. N.
- Filliâtre, L., and Vernotte, P., failure of elasticity in metals: damping of torsion oscillations, B., 792.
- Filonova, V. F. See Komarovski, A. S.
- Filosofov, A. V., determination of titre of sodium thiosulphate solutions, using Mohr's salt, A., 243. Binding qualities of a mixture of anhydrite cement and clay, B., 707.
- Filosofov, B. I. See Polynov, B. B.
- Filosofov, M. S., utilisation of final molasses and filter-press mud, B., 325.
- Filtration & Water Softening Proprietary, Ltd., filtration and clarification of water, (P.), B., 176.
- Filtrol Co. of California. See Baylis, W. S., Belden, D. S., and Robinson, A. P.
- Filz, F. R., water purification and control, B., 1038.
- Filz, W. See Barrenscheen, H. K., and Eirich, H.
- Finch, A. H., and Kinnison, A. F., pecan rosette; soil, chemical, and physiological studies, B., 518.
- Finch, G. I., electrical ignition of explosive gaseous mixtures, A., 30.
- Murison, C. A., Stuart, N., and Thomson, G. P., catalytic properties and structure of metal films. I. Sputtered platinum, A., 1019.
- and Quarrell, A. G., determination of crystal lattice constants by electron diffraction, A., 658. Crystal structure and orientation in thin films, A., 768. Structure of magnesium, zinc, and aluminium films, A., 1106. See also Bradford, B. W.
- Finck, A. See Leulier, A.
- Fincke, H., aroma-producing substances of cocoa, B., 169.
- Findeisen, L. See Froehnow, F.
- Findeisen, O., spectrographic analysis of metals in practice, B., 551.
- Fine, J., vitamins in ox-serum. I., A., 1338.
- Fine, M. S. See Buskirk, H. H.
- Fingas, E. See Kröger, C., and Neumann, B.
- Finger, W. See Kurtenacker, A.
- Fingerling, G., starch value of barley chaff, B., 682.
- Fink, C. G., electroplating [baths for tungsten], (P.), B., 759. Substantially pure tungsten plating, (P.), B., 795.
- and Allegheny Steel Co., improving the resistance of ferro-lalloy articles to corrosion, (P.), B., 924.
- and Jones, Frank L., tungsten plating, (P.), B., 795.
- and Lambros, G. C., rhodium plating, B., 751.
- and Wong, C. Y., cyanide-free bath for deposition of copper on steel, B., 431.
- Fink, D. E., digestive enzymes of the Colorado potato beetle and influence of arsenicals on their activity, A., 82.
- Fink, D. S., Mortimer, G. B., and Truog, E., three years' results with an intensively managed pasture, B., 933.
- Fink, H., cause of fire in the laboratory, A., 368. Chips, B., 406, 681, 984.
- Fink, H., and Berwald, E., cytochrome spectra of brewer's yeasts, A., 428.
- and Holl, O., chips, B., 406.
- and Hoerbuerger, W., fluorescence of the porphyrins. I. and II., A., 959, 1173.
- and Kühles, R., staining of yeast by methylene blue and the permeability of the yeast-cell membrane. IV. An improved staining solution for detection of dead yeast cells, B., 648.
- and Leehner, R., determination of colour depth in worts and beers by the new Loitz colorimeter, B., 407.
- See also Fikentscher, R.
- Fink, M., and Hofmann, Ulrich, oxidation of metals under the influence of friction, A., 241. Theory of frictional oxidation [of metals], B., 23.
- Finkelburg, W., light excitation and emission in hydrogen sparks under increased pressure, A., 1. Significance of Hg A bands at 2365 and 2285 Å. and of the Hg<sub>2</sub> band at 1690 Å., A., 548. Continuous gas spectra. II., A., 880.
- and Steiner, W., absorption spectrum of oxygen at high pressures and existence of the O<sub>4</sub> molecule. I. Ultra-violet bands between 2900 and 2300 Å., A., 5.
- Finkelstein, J. See Curtis, R. W.
- Finkelstein, V. S., and Aschkinazi, M. S., connexion between complex formation, solvation, and formation of electroconductive systems. I., A., 354.
- and Kurnosova, P. V., connexion between complex formation, solvation, and formation of electroconductive systems. II. Ebullioscopic study of the systems dimethylpyrone-group V element halide-benzene, A., 781.
- Finkle, P., fate of tartaric acid in human body, A., 528.
- Finlay, A. See Currie, J. N.
- Finlay, W., and Lyons, J., influence of agitation of milk before separation on fat loss in skim milk, B., 1079.
- Finlayson, D. See Brit. Celanese.
- Finley, S. E., road-surfacing, (P.), B., 63\*.
- Finn, A. N. See Glaze, F. W.
- Finnegan, T. J., and Corey, R. C., removal of corrosion products from iron, B., 390.
- Finnell, H. H., and Houghton, H. W., nitrogen content of rain water, A., 140.
- Finney, G. W. See Protzeller, H. W.
- Fintiktikov, B. P., diphenyl ether as a means of rationalising heat-producing plant and possibility of its utilisation in the anilino dye industry, B., 415. High-pressure steam boilers in aniline dye industry, B., 618.
- Fintintinov, B. I. See under Fintiktikov, B. P.
- Finzenhagen, H. See Miethke, M.
- Finzi, C., and Mangini, A., diphenyl series. III. Nitration of 2:4-derivatives. IV. Nitro-compounds of 2:4-dihalogenodiphenyl derivatives, A., 388.
- Fiock, E. F. See Osborne, N. S.
- Firestone Tire & Rubber Co., Wilhelm, R. D., and Bevan, E. E., treatment of rubber compositions, (P.), B., 33. See also Hulslander, R. D.
- Firla, T. See Wertyporoch, E.
- Firmin, L. W. G. See Colas Products, Ltd.
- Firor, W. M. See Grollman, A.
- Firth, Blakeley, Sons & Co., Ltd. See Bryant, D. Y.
- Firth Sterling Steel Co. See Meth, M.
- Fischbach, E. See Hahn, A.

- Fischer, A., determination of antip thrombin in blood-serum, A., 296. Thrombin. I. Fractionation and purification. II. Components. III. Coupling of the components, A., 1065. and Nyström, P., inhibition of growth by heparin, A., 982. and Schmitz, A., blood coagulation, A., 522. Effect of cations and anions on coagulation of blood, A., 522. See also Schmitz, A.
- Fischer, A. C., and Carey Manufg. Co., P., bituminous mixture, (P.), B., 455. Constructional material [for heat insulation, etc.], (P.), B., 469. Expansion joint material [for concrete constructions], (P.), B., 628. Bituminous mixtures for expansion joints and general construction work, (P.), B., 694. Adhering fabrics, (P.), B., 698. Constructional material, (P.), B., 708.
- Fischer, Franz, lignin theory of origin of coal, B., 496. Utilisation of coal for gas, B., 690.
- Horn, O., and Küster, H., artificial material from coal for manufacture of common objects, B., 132.
- and Koch, H., reaction mechanism of the benzene synthesis, and engine performance and other properties of the products ("gasol," benzene, Diesel oil, paraffin wax), B., 50.
- and Küster, H., influence of pressure and temperature on the synthesis of benzene and synthol in a liquid medium, B., 211.
- Lieske, R., and Winzer, K., biological method of rendering coal gas non-poisonous, and production of town's gas from water-gas, B., 900.
- and Meyer, K., influence of the conditions of preparation on the activity of a nickel-manganese-aluminium catalyst, B., 305. Reducibility of nickel catalysts [for synthesis of benzene], B., 375. Activating effect of ammonia on reduction and activity of nickel catalysts, B., 375.
- and Peters, K., gas content of coal; seam-gas content and outgassing of coal, B., 898.
- Peters, K., and Cremer, W., bituminous coal bitumen and conversion of bituminous coals into pseudo-bitumen by hydrogenation. II.  $\mu$ -Coals, B., 578. Formation of crystalline oxidation products on heating fuels in a current of air. III.  $\mu$ -Coals, B., 578.
- and Pichler, H., thermal decomposition of methane; synthesis of benzene and acetylene, B., 10. Thermal conversion of ethylene and ethane into other hydrocarbons, with special reference to the formation of acetylene, B., 53. Thermal decomposition of benzene and petroleum with especial reference to formation of acetylene, B., 135. Reciprocal influence of carbon monoxide and carbon dioxide in their hydrogenation, especially in relation to the synthesis of benzene, B., 849.
- Pichler, H., and Reder, R., carbon monoxide-hydrogen mixtures suitable for the synthesis of benzene, B., 49.
- Roelen, O., and Feisst, W., present technical position of the benzene synthesis, B., 136.
- Fischer, Friedrich. See Braun, J. von.
- Fischer, F. G., and Löwenberg, K., decarboxylation of unsaturated  $\beta$ -hydroxy-acids; synthesis of allo-cimene, A., 592. Mucondialdehyde, A., 595.
- and Stoffers, O., action of carbon monoxide on organo-magnesium compounds, A., 383.
- and Wehmeier, E., induction substance in the development of the embryo, A., 1074.
- Fischer, F. P., thread-forming property of vitreous humour of animal and human eyes, A., 84.
- Fischer, G. See Schmalfuss, Hans.
- Fischer, H., spectrographic pharmacology and toxicology. I. Spectrographic detection of poisons. II. Spectrographic detection of alkaloids; tropine alkaloids, A., 859.
- Fischer, Hans, chlorophyll a, A., 617. and Baumgartner, H., bile pigments. XII. Dihydromesobilirubin, A., 725.
- Breitner, S., Hendschel, A., and Nüssler, L., chlorophyll-b, II., A., 839.
- and Dürr, M., porphyrin syntheses. XLVII. Synthesis of 1:3:5:8-tetramethyl-6:7-di- $\beta$ -carboxyethyl-2:4-dipropenylhaemin, A., 515.
- and Hagert, W., chlorophyll. XXXII. Neophaeoporphyrin  $a_6$ , hydroxymethylphaeophorbide and its dihydro-derivative, and allophaeoporphyrin  $a_7$ , A., 724.
- Heckmaier, J., and Hagert, W., chlorophyll. XXXIV. Chemistry of the chlorophorphyrins; chlorophorphyrin  $e_7$ , lactone, phaeoporphyrin  $a_7$ , and their decarboxylation to hydroxymethyl-rhodoporphyrin lactone and chloroporphyrin  $e_8$ , A., 1172.
- Heckmaier, J., and Plötz, E., chlorophyll. XXXI. Chlorin  $e_1$ , chloroporphyrin  $e_8$ , and isophaeoporphyrin  $a_8$ , A., 402.
- and Hendschel, A., biological chlorophyll degradation. III. Isolation of chlorophyll derivatives from elephant and human faeces, A., 627.
- Hendschel, A., and Nüssler, L., chlorophyll. XXXVII. Chlorophyll b. III. Proof of the isocyclic ring in chlorophyll b, A., 1173.
- Kirstahler, A., and Zychlinski, B. von, porphyrin syntheses. XLVI. Synthesis of the parent substance [etioporphyrin] of protoporphyrin and haemin, A., 168.
- and Lakatos, E., chlorophyll. XXXIX. Catalytic hydrogenation in the chlorophyll series, A., 1308.
- and Orth, H., dipyrrolyketones. II., A., 722.
- and Pratesi, P., chlorophyll. XXX. Pyrrolochin and derivatives, A., 402.
- and Riedmair, J., chlorophyll. XXVIII. Synthesis of deoxophylloerythrin; bromovinylpyrroles. XXXVIII. Fission of chlorophyll a and its derivatives by diazomethane; crystalline allomerised ethylphaeophorbide a, A., 167, 1308. isophaeoporphyrin  $a_6$ , A., 959.
- Siedel, W., and Le Thierry d'Ennequin, L., chlorophyll. XXIX. Synthesis of four isomeric phylloporphyrins, A., 286.
- Yoshioka, Torakichi, and Hartmann, P., constitution of bile pigment. IX. Synthesis of 5-hydroxy-2:4-dimethyl-3-ethylpyrrole and a new synthesis of xanthobilirubin acid or bilirubin acid, A., 76.
- See also Siedel, W.
- Fischer, Hellmut, diphenylthiocarbazine as reagent for detection of traces of heavy metals, A., 799. Dithizone reactions, A., 923.
- Leopoldi, G., microchemical determination of heavy metals with dithizone (diphenylthiocarbazine). I. Lead. II. Copper, A., 923.
- and Schwan, W., deposition of beryllium on copper and other metals by electrolysis of fused substances, A., 1254.
- Fischer, H. G. M. See Lebo, R. B.
- Fischer, H. O. L., and Baer, E., syntheses with "acetonised" glyceric ester. I., A., 593.
- and Gohlke, B., benzyl compounds of  $\alpha$ -hydroxy-acids and their application to syntheses. I. Derivatives of glycollic acid, A., 1142.
- Fischer, J., simple and serviceable membrane-manometer of glass or quartz, A., 1027.
- Fischer, Josef. See Vorländer, D.
- Fischer, K., measurement of viscosity, A., 45.
- Fischer, Kaspar, present position of the problem of fine grain [in photography], A., 577.
- Fischer, M. See Mino, E.
- Fischer, O. J., influence of CO<sub>2</sub> produced in silo on conservation of green fodder, B., 570.
- Fischer, P., and Katznelson, electron paths in solutions during electrolysis using a sparking cathode, A., 785.
- Fischer, Ph., and Huppmann, G., distribution of avertin in the organism during narcosis, A., 860. Determination of uric acid in blood, A., 1316.
- Fischer, R., polymorphism of phenarsazine chloride (adamsite), A., 171. Identification of aldehydes and ketones by micro-melting point determination, A., 843.
- See also Kofler, A.
- Fischer, V., heats of vaporisation of binary mixtures, A., 770. Phase diagram for ternary mixtures, A., 782.
- Fischer, W. (Cologne). See Falkenhagen, H.
- Fischer, Walter. See Houben, J.
- Fischer, Werner, cryoscopic rules and dipole theory, A., 447. Thermal properties of halides. V. Influence of constitution on m.p., b.p., heats of vaporisation, and volumes of halides. VII. Formation of polymerised molecules by halide vapours, A., 560, 894.
- and Gewehr, R., measurement of vapour pressure by transference and its application to the pneumatolytic transference of aluminium oxide by hydrogen chloride or chlorine, A., 44.
- and Weidemann, W., thermal properties of halides. VIII. Gas densities of BF<sub>3</sub>, SiF<sub>4</sub>, and GeF<sub>4</sub> at room temperature and near the b.p., A., 894.
- See also Rahlfs, O.
- Fischer, W. M., and Cirulis, A., anhydro-bisbindone and chemistry of production of tribenzoylenebenzene (truxenequinone), A., 161.
- Fischesser, A. See Gen. Aniline Works.
- Fischgold, H. See Rona, P.
- Fischl, F., microanalytical detection and determination of fructose in presence of aldoses and sucrose, A., 732. Detection and determination of fructose in presence of dextrose, B., 1076.
- Fischl, V., chemotherapeutic examination of rare metals, A., 186.

- Fischler, F., Hauss, H., and Täufel, K., hydrolysis of sugars by alkalis, A., 1278.  
See also Schwaibold, J.
- Fish, F. H., and Taylor, F. M., effect of presence of perchloric acid in proximate analysis of limestone, A., 922.
- Fishback, D. K., and Fishback, H. R., experimental muscle degeneration. IV. Carbohydrate metabolism in muscle repair. V. Nitrogen metabolism of degenerated muscle in acute injury and repair, A., 1071.
- Fishback, H. R. See Fishback, D. K.
- Fishberg, E. H., clinical determination of protein content of body-fluids, A., 1319.
- and Dolin, B. T., biological action of strongly positive oxidation-reduction systems, A., 858.
- and Friedfeld, L., excretion of xylose as an index of damaged renal function, A., 86. Excretion of xylose as a measure of renal function in children, A., 853.  
See also Kopetzky, S. J.
- Fisher, A., and Morrell, J. C., motor fuel from coal and oil shales, B., 849.
- Fisher, A. M., and Scott, D. A., attempted peptic synthesis of insulin, A., 754.
- Fisher, C. H., action of bromine on acetomesitylene; polyhalogeno-derivatives of 3:5-dibromoacetomesitylene, A., 1296.
- Fisher, E. R. See Edgar, R.
- Fisher, E. A., wheat, B., 762.  
and Halton, P., swelling of gluten in acid solution as an indication of flour quality, B., 408. Effect of addition of oils and fats to doughs on composition of washed-out gluters, B., 649.  
and Thomlinson, J., rapid determination of moisture in flour and other finely-divided materials, B., 89.
- Fisher, H. C., and Richardson Co., colouring slabs of mineral substances, (P.), B., 671.
- Fisher, H. F., and Petroleum Rectifying Co. of California, dehydration of [petroleum] emulsions, (P.), B., 538.
- Fisher, H. J., [assay of] calcium gluconate, B., 332.  
and Bailey, E. M., polarimetric method for determination of calcium gluconate, B., 332.
- Fisher, H. L., and Goodrich Co., B. F., rubber conversion products, (P.), B., 116. Heat-plastic composition, (P.), B., 757.  
See also Naugatuck Chem. Co.
- Fisher, J. D., shortening value of plastic fats, B., 1065.
- Fisher, L. C., and Reimann, H. A., effect of insulin on blood-sugar of rabbits during infection, A., 1085.
- Fisher, L. H., and Hercules Powder Co., igniter charge for blasting caps, (P.), B., 846.
- Fisher, (Miss) N. I., and Hamer, (Miss) F. M., tricarboyanines, A., 405.
- Fisk, H. G., and McCaughey, W. J., equilibria in systems containing magnesium oxide, iron oxide, and magnesium aluminate, A., 126.
- Fiske, A. H., Bryan, C. S., and Rumford Chem. Works, [removal of fluorine from] phosphoric acid, (P.), B., 266.  
and Rumford Chem. Works, prepared flour, (P.), B., 42. Baking powder, (P.), B., 42.
- Fitch, A. A., Sierra Nevada as a co-magmatic region, A., 46.
- Fitch, R. H. See Voegtlin, C.
- Fitelson, J., correction tables for dextrose and lactose in presence of sucrose for use in the Lane-Eynon method, B., 38. Determination of sugars in chocolates containing dextrose, B., 41.
- Fitzger California Co., cleaning of wool and other fibres, (P.), B., 1051.  
See also Brown, Russell L.
- Fitzgerald, J. S., and Packer, J., glutaconic acids. XXIII. Catalytic effect of acids on rate of racemisation of *l*-trans- $\alpha$ -dimethylglutaconic acid, A., 789.
- Fitzgerald, J. W., cleaning and gas-freeing of hydrocarbon-storage tanks, (P.), B., 853.
- Fitz-Gibbon, M., rapid determination of arsenates, A., 921.
- Fitzpatrick, J. C. See Amer. Tar Products Co.
- Fitzsimons, J. C., infants' food from cows' milk, (P.), B., 731.
- Fixen, M. A. B., and Jackson, H. M., biological values of proteins. III. Method used to measure nitrogenous exchange of rats. IV. Biological values of proteins of wheat, maize, and milk, A., 182.
- Fjäder, T., bromination of enols and enol ethers, A., 716. Indirect enol titration, A., 732.
- Fjell, K. K., arrangement of [container for] drying animal, vegetable, and mineral raw materials, using electro-osmose and mechanical pressure, (P.), B., 72.
- Flake, E. See Graf, Otto.
- Flamanc, influence of refining on stability of transformer oil, B., 293.
- Flanley, M. G., and Johnson, E. M., iron loss in cooking broccoli, B., 123.
- Flanzer, J. A., Reisman, E., and Technidyne Corp., resistance, (P.), B., 717.  
and Technidyne Corp., resistance units; resistor, (P.), B., 717.  
See also Jones, L. L.
- Flanzky, M. See Semichon, L.
- Flatt, R., and Jordan, A., solvation; determination of radii of ions in solution, A., 348.
- Flatter, micro-determination of lipin-phosphorus, A., 878.
- Flatter, M. See Lobstein, J. E.
- Flavigny, R. See Vellinger, E.
- Flaxman, M. T. See Dunham, R. A.
- Fleck, H. R., and Ward, A. M., determination of metals by means of 8-hydroxyquinoline. I. Effect of  $pH$  on the precipitation of Mg, Zn, Co, Ni, Cu, and Mo from acetate solutions, A., 922.  
See also Sage, C. E.
- Flecken, H., activity of *p*- and *m*-sympatol, A., 91.
- Flege, R. K. See Marek, L. F.
- Flegel, K., feeding value and nutrient losses in potatoes utilised in various forms, B., 650.
- Fleharty, I. B., heat of reaction of  $2Fe(ClO_4)_3 + 2Hg = 2Fe(ClO_4)_2 + Hg_2(ClO_4)_2$  from equilibrium data, A., 905.
- Fleischer, A. See Kalunite Co.
- Fleischer, F. See Sauerwald, F.
- Fleischer, J. See Foote, H. W.
- Fleischer, M. See Foote, H. W.
- Fleischhacker, H., and Scheiderer, G., determination of "normal" bromine content of blood. II., A., 965.
- Fleischmann, R., external photo-electric effect of alkali halide crystals, A., 999.
- Fleischmann, W., and Kann, S., action of methylene-blue on cell respiration, A., 417.
- Fleisher, M. S. See Merrill, M. H.
- Fleming, G. B., Morris, N., Ford, F. J., and Gilchrist, M. L., diabetes in childhood. I. Aetiology, diagnosis, and prognosis. II. Treatment. III. Coma. IV. Significance of the blood-sugar curve in ketosis, A., 302.
- Fleming, G. H. See Whitmore, F. C.
- Fleming, J. S. B. See Imperial Chem. Industries.
- Fleming, N. O., dual-element cooling tower, (P.), B., 369.
- Fleming, R., colorimetric determination of glutathione, A., 546.
- Fleming, W. D., solar ultra-violet radiometry, A., 656.
- Fleming, W. E., contact sprays for the Japanese beetle, B., 760.
- Flemion, F., after-ripening of *Rhodotypus kerrioides* seeds, A., 437.
- Flemming, C. F., and Ohio Rubber Co., vulcanisation [of rubber], (P.), B., 642.
- Flerov, K. V., and Grünberg, O. I., sorption of water vapour by mineral salts, A., 899.
- Flerus, W., differences in durability between brushing and spraying nitrocellulose lacquers, B., 114.
- Flesch-Werke Akt.-Ges. für Gerbstofffabrikation & Chem. Produkte, organic persulpho-compounds [arylsulphonates], (P.), B., 857. Use of organic persulpho-compounds, (P.), B., 906.
- Fletcher, A. E. See Wood, D. R.
- Fletcher, C. J. M., and Hinshelwood, C. N., thermal decomposition of acetaldehyde and existence of different activated states, A., 910.  
See also Hinshelwood, C. N.
- Fletcher, C. L. See Kodak, Ltd.
- Fletcher, F. W. See Howard, N. F.
- Fletcher, H. W., and Hughes Tool Co., carburising furnace, (P.), B., 432.
- Fletcher, J. E., iron, (P.), B., 552.
- Fletcher, L. See Ford, J. S.
- Fletcher, W. A., and Lewis, K., nitro-compounds as oxidising agents, A., 817.
- Fletcher & Co. Ltd., G., and Sykes, F. H., crystallisers for manufacture of sugar and similar apparatus, (P.), B., 370.
- Fleurent, E. See Bary, P.
- Fleury, P., and Lange, Jacques, determination of periodic acid in presence of iodic acid, A., 362. Oxidation of hydroxy-acids and sugars by periodic acid, A., 376. Action of periodic acid on polyhydroxy-compounds. I.—III., A., 486, 591, 596.  
and Paris, R., action of periodic acid on  $\alpha$ - and  $\beta$ -glycero-phosphoric acids, A., 696.
- Flexner, J. See Amberson, W. R.
- Flexner, S., prevention of poliomyelitis, A., 303.
- Flinn, F. B., and Smith, A. R., effect of viosterol on excretion of lead, A., 434.
- Flint, E., Günther, P. L., and Eichholtz, F., action of complex-formers and X-rays on partition of lead in organs and tumours, A., 414.
- Flint, E. P., and Wells, L. S., activity coefficients of hydroxyl ion in solutions of calcium hydroxide at 30°, A., 1119.
- Flint, F. C., and Lyle, A. K., test for chemical resistance of glass containers, B., 1055.

- Flint, H. T., uncertainty principle, A., 1101.
- Flint, J. A., Hazeltine, F. T., and Traylor Vibrator Co., apparatus for the wet screening or separation of intermixed materials, (P.), B., 769.
- and Traylor Vibrator Co., crusher, (P.), B., 3.
- Flint, W. P. See Farrar, M. D.
- Flintkote Corporation. See De Lange, A. J., Elkington, H. D., Gregg, M. G., Groskopf, E. O., Hearn, F. C. van, Kirschbraun, L., and Levin, H. L.
- Flock, E. See Higgins, G. M.
- Flörsheim, W., occurrence of polyklevans in nature and their possible relationship to primarily formed sugar, A., 652.
- Flössner, O., Kutscher, F., and Wittneben, W., hormonal regulation of purine metabolism, A., 1209.
- Flohil, J. T., report of Sub-Committee on development of a volumetric copper reduction method for sugar determinations, B., 1076.
- Flood, A. See Schmidt-Nielsen, S.
- Flood, E. A., preparation of silicon triethyl halides, A., 599.
- and Horvitz, L., halogenation reactions. I. Regularities of relative rates of reaction in liquid media, A., 788.
- Flood, H. See Bayerl, V.
- Florence, G., Enselme, J., and Pozzi, M., vegetable proteins. I. Preparation of purified edestin, A., 545.
- and Loiseleur, J., permeability of protein-cellulose membranes, A., 565.
- Florentin, D., characterisation of anthracites and anthracite coals, B., 131.
- Florescu, N. See Procopiu, S.
- Florin, A. See Abelin, I.
- Florin, M., dissociation curve of oxyhaemocrythrin in cœlomic liquid of *Sipunculus*, A., 81.
- Flosdorf, E. W., and Chambers, L. A., chemical action of audible sound, A., 915.
- Flotow, E. See Heiduschka, A.
- Flügge, S., wave mechanical model of the neutron, A., 550.
- See also Born, M.
- Fluid Pressure Pumps, Ltd. See Melmore, W. M.
- Fluss, W. See Kurtenacker, A.
- Flynn, E. J., and New Jersey Zinc Co., lithopone, (P.), B., 676.
- Foa, A., action of radium emanation on single cells or groups of cells, A., 1079.
- Focet, B. See Sanfourche, A.
- Fock, V., exchange energy, A., 444.
- Electromagnetic fields due to variable electric charges and intensities of spectrum lines according to the quantum theory, A., 1096.
- Focke, A. B. See Goetz, A.
- Focke, C., *Digitalis* preparations with added glycerin, B., 524.
- Fodor, A., mechanism of enzyme action, A., 92.
- Relation between chemical and colloidal structure of proteins, A., 730.
- and Kuk, S., acropeptide from caseinogen; structure of polypeptide chains in relation to enzymic hydrolysis, A., 621.
- Structure of proteins. XIII. Acropeptides obtained from gelatin by action of hot glycerol; peptonised forms of these and their degradation by enzymes, A., 843.
- Föhr, F. See Bergmann, M.
- Foerster, F., and Schmitt, O., sulphurous acid and its salts. XII. Action of hydrogen sulphide on potassium hydrogen sulphite solutions, A., 38.
- Förster, J. See Müller, Erich.
- Förster, T., polarisation of electrons by reflexion, A., 1097.
- Foëx, G., magnetic properties of mesomorphic substances; analogies with ferromagnetics, A., 1105.
- Recent researches on paramagnetism and atomic moments, A., 1233.
- Susceptibility of paramagnetic solutions, A., 1233.
- Fogarty, J. A. See Hill, R. B.
- Fogle, M. E., and Olin, H. L., clarifying action of fuller's earth, A., 1243.
- Folch, R., and Fernández, O., use of ferrous sulphates and bromine water in detection of substituted phenols, A., 173.
- See also Fernández, O.
- Foley, F. B. See Cox, J. L.
- Folien- & Flitterfabrik Akt.-Gcs., endless bands of gelatin, cellulose derivatives, etc., (P.), B., 782.
- Folin, O., determination of uric acid in unclaked blood and in urine, A., 845.
- Folkers, E. C. See Dahle, C. D.
- Folkers, K., and Johnson, T. B., pyrimidines. CXXXI. Reduction of 1:2:3:4-tetrahydropyrimidines. CXXXIII. Reactions and derivatives of ethyl 2-keto-4-phenyl-6-methyl-1:2:3:4-tetrahydropyrimidine-5-carboxylate. CXXXIV. Reaction of phenylacetaldehyde and acetophenone with carbamide. CXXXVI. Mechanism of formation of tetrahydropyrimidines by the Biginelli reaction, A., 515, 957, 1059, 1171.
- Follansbee Bros. Co. See Reno, R. E., jun.
- Follett-Smith, R. R. See Williams, C. H. B.
- Folley, S. J., and Mattick, A. T. R., stainless steel high-pressure ultra-filter, A., 1027.
- Folliet, A., and Sainderichin, N., roasting of ferruginous materials [e.g., poor iron ores], (P.), B., 272.
- Spongy iron, (P.), B., 472.
- Folly, S. J., preparation and fractionation of the  $\alpha$ -naphthylcarbimide compound of plastein, A., 619.
- Folmer, H., ionising effect of  $\alpha$ -rays in solid dielectrics, A., 4.
- Folsom, D., effect of scab-preventive treatment on apple-tree growth and yield, B., 566.
- Folsom, R. M., and New England Fuel & Transportation Co., charging of coke ovens, (P.), B., 820.
- Apparatus for producing gas and coke, (P.), B., 820.
- Folwell, A. P., ammonia-chlorine and activated carbon treatment of water, B., 654.
- Fomin, S., vitamin-B, -C, and -D contents of sorghum silage, B., 444.
- Fonda, G. R., effect of particle size on intensity in X-ray spectroscopic analysis, A., 242.
- Young, A. H., and Walker, A., diffusion of thorium in tungsten, A., 771.
- Fontaine, M., and Boucher-Firly, alkaline reserve of blood of fishes, A., 734.
- Fontès, G., and Thivolle, L., effect of administration of tryptophan on weight and carbon and nitrogen excretion of the adult animal, A., 418.
- Effect of administration of histidine on weight and carbon and nitrogen excretion of the adult animal, A., 418.
- Fontès, G., and Thivolle, L., effect of simultaneous administration of tryptophan and histidine on weight and carbon and nitrogen excretion of the adult animal, A., 418.
- Fonteyne, R., measurement of light absorption; accuracies of several spectrophotometric methods, A., 925.
- and De Sinet, P., micro-determination of ethyl alcohol and glycerol by means of a selenium photo-electric cell colorimeter, A., 1271.
- Food Machinery Corporation. See McDill, R. D. O., and Sharma, J. N.
- Foot, N. C., Masson trichrome staining methods, A., 846.
- Foot, F. See Jette, E. R.
- Foot, H. W., and Bradley, W. M., solid ammonium polyiodide, A., 240.
- Bradley, W. M., and Fleischer, M., polyiodides of cesium, A., 239.
- and Fleischer, J., equilibrium in systems composed of sulphur dioxide and sodium, potassium, or ammonium thiocyanate, A., 28.
- and Vance, J. E., system sodium iodate, sodium carbonate, water, A., 782.
- Foot, P. A., and Mirov, N. T., oleoresin of *Pinus monticola*, Dougl., A., 1216.
- Foot, P. D., Ruark, A. E., and Chenault, R. L., bluish-green fluorescence of mercury vapour, A., 200.
- Forbes, D. M., importance of measurement in industrial practice, with special reference to iron and steel industries, B., 373.
- See also Müller, W. J.
- Forbes, E. B., law of maximum normal nutritive value [of foodstuffs], A., 631.
- Bramann, W. W., Kriss, M., and Swift, R. W., associative effects of foods in relation to utilisation of food energy, A., 855.
- Forbes, G. S., and Elkins, H. B., influence of halides on extinction co-efficients, and its bearing on constitution of silver halides in fusion, A., 997.
- and Faul, J. H., jun., equilibria, complex ions, and electrometric titrations. I. Iodine or bromine in hydrochloric acid. II. Iodine, bromine, and hydrobromic acid; iodine tribromide, A., 675.
- and Heidt, L. J., photochemical reaction between quinine and dichromic acid. III. Quinine derivatives and utilisation of absorbed quanta, A., 792.
- Heidt, L. J., and Brackett, F. P., photochemical reaction between quinine and dichromic acid. II. Kinetics of the reaction, A., 359.
- See also Bullock, J. L., Elkins, H. B., and Heidt, L. J.
- Forbes, M. See Bunzell, H. H.
- Forbes Lithograph Manufacturing Co. See Cornell, A. W.
- Forbing, (Mrs.) F. See I. G. Farbenind.
- Force, J. See Gen. Electric Co.
- Ford, F. J. See Fleming, G. B.
- Ford, J. G. See Westinghouse Electric & Manufg. Co.
- Ford, J. S., Tait, A., Fletcher, L., Speirs, J., and Mitchell, W. J., Institute of Brewing Research Scheme; determination of nitrogen in yeast and brewing materials, B., 842.
- Ford, M. C., nature of phosphate fixation in soils, B., 561.

- Ford, O. W., and Kraybill, H. R., determination of insoluble phosphoric acid in fertilisers, B., 36.
- Forðyce, C. R., and Johnson, J. R., branched-chain aliphatic acids; isomyristic, isopalmitic, and isostearic acids, A., 1034.
- See also Kodak, Ltd.
- Foresti, B., supposed chain mechanism of formation of water from detonating gas in presence of platinum-black, A., 1126. Chain reactions in heterogeneous catalysis, A., 1126.
- Forestier, H., influence of magnetic field on electrolysis of nickel salts, A., 34.
- and Haury, (Mlle.) M., influence of magnetic field on corrosion of iron in solutions of salts of noble metals, A., 911.
- Forjaz, A. P., spectroscopic researches on the Portuguese mineral waters; germanium as indicator of deep waters, A., 1028.
- Forman, D. B. See Noyes, W. A.
- Formánek, J., new vat dyes, B., 54.
- Formiguera, R. C., Hagedorn and Jensen's method for determining blood-sugar, A., 295.
- and Bieto, E., mechanism of adrenaline hyperglycemia, A., 1210.
- Fornet, A., rapid baking test for quality of all flours using baking powder, B., 408.
- Forney, J. D. See Brit. Thomson-Houston Co.
- Forrer, R., law of discontinuous distribution of ferromagnetic Curie points. I.—IV., A., 556, 667, 1236. Interatomic electrons in crystal lattices, A., 557.
- Forrer-Jaggi, R. C., and Mines Domaniales de Potasse d'Alsace, electromagnetic separation of materials, (P.), B., 716.
- Forrest, H. O., Frolich, P. K., and Nat. Synthetic Corp., oxidation of cyclic organic compounds, (P.), B., 999.
- Forrest, J., magnetic structure of an iron alum in strong fields, A., 664.
- Forrest, L. R., Conklin, E. B., and Barrett Co., distillation of tar and apparatus therefor, (P.), B., 420.
- Forsch, B. N., modes of expression of results of hydrochemical analyses, A., 1022.
- Forse, E. B., and Geiger, C. F., refractory containing silicon carbide, (P.), B., 62.
- Geiger, C. F., and Carborundum Co., tunnel kiln, (P.), B., 447.
- Forsén, L., complex-chemistry of Portland cement, B., 1009.
- Forssman, S., hydrotrophy, A., 897. Bacterial production of amyl alcohol, A., 1082. Enzyme system of Lindner's *Thermobacterium mobile*, A., 1083.
- Forster, A. L., heat-insulation, B., 415.
- Forster, J., tanning of hides and extraction of tanning liquors from myrobalans, bark, etc., (P.), B., 320.
- Forster, J. A. B., filter-press design and operation, B., 767.
- Forster, T. E., mixing machine, (P.), B., 255.
- Forsythe, W. E., and Barnes, B. T., crystalline quartz double monochromator, A., 689.
- Fort, C. A., and Walton, C. F., jun., quantity of syrup from cane grown on different soils, B., 361. Effect of clarification on quality of raw and plantation white sugars, B., 840.
- Fort, M., heat test applied to tendered cotton and linen fabrics, B., 422. Qualitative tests to distinguish between oxycellulose and hydrocellulose, B., 619.
- Fort, R. See Müller, W. J.
- Forth Engine & Motor Works (Newcastle-on-Tyne), Ltd. See Paynter, W. L.
- Fortner, P., poisoning by wine containing cadmium, A., 91.
- and Rotsch, A., is Täufel and Thaler's ketone-rancidity test reliable for evaluation of edible fats? B., 876.
- Forward, C. B., and Forward Process Co., apparatus for refining oil, (P.), B., 855.
- Forward Process Co. See Forward, C. B.
- Forwood, G. F. See United Kingdom Oil Co.
- Fosbinder, R. J., surface potentials of unimolecular films of ergosterol; photochemical formation of vitamin-D, A., 326.
- and Lessig, (Miss) A. E., structure of unimolecular films. I. Surface potentials of films of long-chain compounds. II. Surface films of proteins, A., 564, 672.
- Foschini, A., detection of elements belonging to the analytical group IV., A., 1024.
- Fosdick, L. S. See Hansen, H. J.
- Fosse, R., and Brunel, A., presence of allantoinic acid in fungi, A., 990.
- De Graeve, P., and Thomas, P. E., new vegetable principle: uric acid, A., 198. Rôle of allantoinic acid in higher plants, A., 648. Conversion of intermediate term of permanganate oxidation of uric acid into allantoinic acid in presence of soya enzymes and potassium cyanide, A., 982.
- Foster, A. R. See Bassett, H.
- Foster, A. W., thermo-electric powers of nickel and nickel-chromium alloys near the Curie point, A., 559.
- Foster, C. E. See Wild-Barfield Electric Furnaces, Ltd.
- Foster, D. G., organic selenium compounds. II. New type of aromatic selenium halide, A., 407.
- Foster, D. P. See Hartman, F. W.
- Foster, E. O. See Greene, R. A.
- Foster, F. H., and Priestley, W. C., solidification of carbon dioxide, (P.), B., 703.
- Foster, H. B., and Nat. Aniline & Chem. Co., flaked phthalic anhydride, (P.), B., 219.
- Foster, J. P., treatment of sugar juices, (P.), B., 888.
- Foster, (Miss) M. D., colorimetric determination of fluorine in [natural] water with ferric thiocyanate, A., 41. Sources of error in use in water analysis of Fairchild's method for determination of fluoride in phosphate rock, A., 920. Colorimetric determination of fluoride in water using ferric chloride, A., 921.
- Foster, R. H. K., and Dyke, H. B., effect of ageing on potency of *Digitalis* tinctures, B., 651.
- Foster, S. J., fat in goatskins, B., 161.
- Foster, W. D., hydration of tricalcium aluminate, B., 388.
- Foster Wheeler Corporation, fractional distillation of [hydrocarbon] oils, (P.), B., 1045.
- See also Brandt, D. G., Dean, D. K., Denney, C. F., Primrose, J., and Wallis, J. S.
- Fothergill, F. See Boulton, J.
- Fotiev, S., and Perekalski, N., influence of kaolin on strength of paper, B., 224.
- Fouassier, M., yoghurt and fermented milks, B., 810.
- Foucaud, P., extraction and purification of radium-E, A., 133.
- Fouchet, A., peroxidation of cerium, A., 683. Percevic salicylate, A., 1049.
- Fouery, J., volumetric determination of chlorides by means of Ionescu-Matiu and Popesco's reaction, A., 135. New metallic complexes of cyanogen compounds, A., 722. Colorimetric determination of phosphate in urine, A., 1320. Determination of volatile acidity of wines, B., 39.
- Foulger, F. See Griffiths, W.
- Foulger, J. H., two new colour tests for hexoses, A., 147.
- Foulk, C. W., and Groves, K., foaming and priming of boiler water; peculiar behaviour in an experimental boiler, B., 687.
- Foulke, T. E., and Gen. Electric Vapor Lamp Co., glow-discharge lamp, (P.), B., 674.
- See also Brit. Thomson-Houston Co.
- Foulon, A., nitroglycerin, B., 252. New explosives, B., 252. Developments in manufacture and use of nitrocellulose, B., 605. Purification and bleaching of oils and fats, B., 1016.
- Foundation Oven Corporation. See Schrader, L. F.
- Foundry Materials, Inc. See Inkley, E. A.
- Fouquet, R. See Gire, G.
- Fourmarier, P., response to sudden illumination of a gas-filled photo-electric cell, B., 154.
- Fourmont, A. See Bruère, P.
- Fourneau, E., and De Lestrage, (Mme.) Y., alcoholic arsenic acids, A., 842.
- Maderni, P., and De Lestrage, (Mme.) Y., heterocyclic bases from coumarans and phenyldioxan [benzdioxan], A., 1168.
- and Matti, J., local anaesthetics; amino-alcohol ethers with salicylic and other phenolic acids, A., 1159.
- Trefouël, J., Bovet, D., and Benoit, G., chemotherapy of paludism; tests on the Java sparrow, A., 747.
- Trefouël, J., Trefouël, (Mme.) J., Bovet, D., and Ketschet, P., chemotherapy of infections of *Trypanosoma congolense*; elective action of organic polyarsenicals, A., 629.
- Fournier, G., and Guillot, M., absorption of  $\beta$ -rays by matter, A., 110. Absorption of  $\beta$ -rays and molecular structure of organic compounds, A., 334. Absorption of  $\beta$ -rays and molecular structure of organic compounds; halogen derivatives, A., 443.
- Fournier, H., testing [of thin metal sheets] by Siebel and Pomp's deep-drawing-widening test, B., 152. Relation between results of deep-drawing-widening and tensile tests [of metals and alloys], B., 152.
- Fournier, M., tin-rich antifriction alloys containing lead, antimony, and copper, B., 350. Influence of small additions of aluminium to tin-rich Cu-Sb-Pb-Sn antifriction alloys, B., 350.
- Fousek, J., sterilisation and preservation of eggs, (P.), B., 170.
- Fouts, P. J. See Helmer, O. M.
- Fowler, E. J., and Nichols Eng. & Research Corp., furnace for dewatering, etc., (P.), B., 128.



- Fowler, M. G., Kuzell, C. R., Ralston, O. C., and United Verde Copper Co., metallurgy of complex ores, (P.), B., 924.  
and United Verde Copper Co., [basic lining for] metallurgical apparatus, (P.), B., 923.
- Fowler, R. H., theory of electronic semi-conductors, and their possible properties, A., 765. Electronic properties of conductors and insulators, A., 887.
- and Bernal, J. D., pseudo-crystalline structure of water, A., 1106.
- Fowler, R. M. See Bright, H. A.
- Fox, A. L. See Du Pont de Nemours & Co., E. I.
- Fox, C. J. J., hydration of cellulose, B., 380.
- Fox, D. L., carbon dioxide narcosis. I. Specific effects of carbon dioxide on protoplasmic streaming and consistency in *Nitella* and on the life of the cell. II. Effect of carbon dioxide compared with that of the hydrogen ion; threshold of tolerance in *Nitella* to carbon dioxide and to the hydrogen ion. III. Salt antagonism. IV. Is lack of oxygen a factor in the narcotic effects of carbon dioxide? V. Water and electrolytes in *Nitella* during exposure to carbon dioxide solutions, A., 988, 1215.
- Fox, E. L. See Benedict, F. G.
- Fox, E. N., cohesion forces in soils, B., 559.
- Fox, F. W., vitamin-A in the livers of native mine labourers, A., 986.
- Fox, G. W., and Bowie, R. M., method for determining the thermionic work functions of metals, and its application to nickel, A., 1099.
- Fox, H. M., and Roche, J., crystalline chloroaurin, A., 1315.  
and Smith, G. P., growth-stimulating substance in fatigued muscle, A., 87.
- Fox, J., development of internal stresses and season-cracking in cold-drawn brass tubes, B., 1061.
- Fox, S. W. See Dunn, M. S.
- Foxwell, G. E., modern trends in British by-product coking industry, B., 178. Modern low-temperature carbonisation, B., 373. Technique of production of high-volatile coke, B., 373. Economics of new coke-oven constructions, B., 416.
- Foyn, E. See Gleditsch, E.
- Fraas, F. See Conley, J. E.
- Fractionator Co. See D'Yarmett, E. C.
- Fradkin, W. Z., and Siegel, J., simultaneous determination of blood-carbon dioxide capacity and urea-nitrogen, A., 1181.
- Fränkel, E., hot plate for drop reactions, A., 801.  
See also Feigl, F.
- Fränkel, Edmund, and Zellner, J., comparative plant chemistry. XXIV. *Heracleum spondylium*, L., A., 876.
- Fränkel, Ernst, and Bielschowsky, F., lipins of mammalian liver. II. Occurrence of lignoceryl sphingosine in pig's liver, A., 176.
- Bielschowsky, F., and Thannhauser, S. J., lipins of mammalian liver. III. Polydiaminophosphatide of pig's liver, A., 846.
- and Löhr, G., lipins of mammalian liver. V. Nature of "unsaponifiable fraction" of mammalian liver, A., 967.
- and Pollanz, A., lipins of mammalian liver. IV. Extraction apparatus for biochemical purposes, A., 1094.
- Fränkel, S., photographic silver salt emulsions, (P.), B., 1036.
- Fraenkel, W., and Hahn, R., so-called induction period in age-hardening of duralumin. I., B., 922.
- Fragapane, G. See Gallo, G.
- Fragen, N., and Partridge, E. P., extraction of potash from polyhalite. IV. Cyclic production of schönite and its use in manufacture of potassium sulphate and syngenite, B., 1007.
- Fragstein, K. von, determination of reflexion capacity of metals in the visible and ultra-violet, A., 656.  
See also Kohn, H.
- Frajberger, S. See Przylecki, S. J. von.
- Frame, G. F. See Allen, C. F. H.
- France, H. V. See Hodgson, H. H.
- France, W. G. See Weinland, L. A.
- Francey, P. See Goldstein, H.
- Franchetti, P. See Padovani, C.
- Francis, A. F., preparing metals for electroplating, (P.), B., 674.
- Francis, A. G., and Harvey, C. O., micro-determination of bromine in blood, A., 1317.
- Francis, C. B., [gas] pipette, (P.), B., 97. [Laboratory] carbon-combustion furnace, (P.), B., 1044.
- Francis, E. L., wire-drawing process. III. Lubrication, B., 152.
- Francis, W., commercial [coal] slacks, B., 290. Mechanism of alkaline permanganate oxidation of coal, B., 451. Rational examination of coal, B., 736.
- Franck, H. H., Bredig, M. A., and Hoffmann, Gerhard, crystalline structure of calcium-nitrogen compounds, A., 666.
- Franck, J., and Eucken, A., transformation of translational into vibrational energy in molecular collision processes, A., 554.  
and Kuhn, H., rigidity and type of binding from continuous absorption spectra, A., 112.
- Franck, O. See Sundelin, G.
- Francke, W., purifying gases by means of liquid-wetted filters, (P.), B., 658.
- Franco, M. R. See Guglielmelli, L.
- François, C., distillation of coal at a low temperature, (P.), B., 180.
- François, F., precipitation of antimonious iodide and its hydrolysis, A., 684.  
and Delwaulle, (Mlle.) L., preparation of bismuthyl iodide by direct combination of bismuth iodide and oxide; dissociation by heat, A., 795.
- François, G. von, chitins, lichenins, and cellulose, A., 598.
- François, M., and Seguin, (Mlle.) L., gravimetric determination of phenols as "aristols," A., 1179.
- François, (Mlle.) M. T., specifications for china-wood oil, B., 974.  
and Droit, (Mlle.) S., composition of oil from the physic nut, *Jatropha curcas*, L., B., 1066.
- François, R. See Dubrisay, R.
- Françon, J., ethylene oxide and ethylene glycol, B., 953.
- Frandsen, M., heat capacity, heat of sublimation, and heat of solution of phosphorus pentoxide, A., 230. Determining solvent properties of volatile thinners in varnishes, B., 556.  
See also Rossini, F. D.
- Frang, G. See Ljunggren, G.
- Frangopol, G. See Hugel, G.
- Frank, A. H. See Turner, C. W.
- Frank, E. N., effect of metal in mixing bread doughs, B., 168.
- Frank, F. See Müller, K. O.
- Frank, G. von. See Mienes, K.
- Frank, H. See Youmans, J. B.
- Frank, H. S., and Lei, F. S., empirical equation of state, A., 218.
- Frank, R., action of arsenic on gastric digestion, A., 1328.
- Frank, R. H. See Gregg, A. W., and Mitchell, H. A.
- Frank, A., Kroupa, A., and Hadzidimitriu, S., synthesis of  $\alpha$ -alkyladipic acids, A., 489.
- Frank, H., increasing durability of weighted silk, B., 863.
- Frank, W., capillary tubes for use in vacuum distillation, A., 480.
- Frank, Waller, determination of crocoto content of brown-coal tars. I.—IV., B., 179, 291. Comparison of methods for determination of water in coal and tar, B., 290.
- Frank, Wilhelm, autoxidation of unsaturated fatty acids. II. Action of carotenoids, A., 49. Energy relationships in biological dehydrogenations, A., 424.  
See also Slotta, K. H.
- Franken, H., formation of furfuraldehyde and carbon dioxide from uronic acids, A., 491.
- Frankenburger, W., theory of ammonia catalysis. I. and II., A., 235, 357, 681. Present position of theory of ammonia catalysis, A., 1253.  
[with Zimmermann, W.], photochemistry of action of ultra-violet irradiation on human skin, A., 312.
- Roessler, G., and Agfa Anasco Corp., production and application of layers sensitive to light, (P.), B., 1036.
- Frankensdorf, B. H. See Kaufhold, R.
- Frankensdorf, J. H. See Kaufhold, R.
- Frankenthal, M., dielectric constants of aqueous solutions of some amino-acids and polypeptides, A., 125, 674.
- Frankl, M., partial separation of gaseous mixtures, (P.), B., 208.  
See also Mapag Maschinenfabr. Augsburg-Plattling A.-G., and Soc. Oxythermique.
- Franklin, (Miss) R. See Allen, A. J.
- Franklin, R. See Electro Metallurg. Co.
- Franquelo, E., active constituents of *Curcuma* (Temoclavac), A., 1327.
- Frantz, T., fused-silica absorber for hydrochloric acid, B., 225.
- Franz, H. See Meissner, W.
- Franzen, H., ester oils, B., 844.
- Fraps, G. S., availability to plants of potassium in polyhalite, B., 279. Determination of starch in feeding-stuffs, B., 523.
- and Fudge, J. F., determination of iron in feeding-stuffs, B., 523. Rapid chemical methods for determining capacity of soil to supply phosphoric acid to plants, B., 561.
- and Sterges, A. J., causes of low nitrification capacity of certain soils, B., 81.
- and Treichler, R., quantitative variations in vitamin-A content of butter-fat, A., 99. Effect of storage on vitamin-A in dried foods, B., 490.  
See also Copeland, O. C.
- Frary, F. C., and Aluminum Co. of America, treatment of aluminium, (P.), B., 112.
- Fraschina, C., phosphorus requirement of soils, B., 1026.

- Fraser, A. H. H., reciprocal relationship of calcium and inorganic phosphorus of the blood of sheep, A., 294.  
and Roberts, J. A. F., variation in protein intake of sheep in relation to wool growth, A., 418.
- Fraser, H. D. See Anderson, W. T., jun.
- Fraser, N. A. See Strezynski, G. J.
- Fraser, R. G. J., and Broadway, L. F., molecular scattering in gases. I. Method of crossed molecular beams, A., 1099.  
See also Broadway, L. F.
- Fraunhofer, H. See Antropoff, A. von.
- Frauenknecht, H., preparation of briquettes for introducing manganese and silicon into cupola castings, (P.), B., 25.
- Frawley, J. T. See McCullagh, D. R.
- Frayser, W. M. See Crockett, W. G.
- Frazer, J. C. W. See Bennett, O. G., and Ebert, M. S.
- Frazier, C. E., annealing furnaces, (P.), B., 895.
- Frazier, R. H., thermal diffusivity of zinc, A., 217.
- Freak, G. A. See Cooper, McDougall & Robertson, Ltd.
- Frearson, T. B. See Trotman, S. R.
- Fred, E. B. See Hopkins, E. W., Ingraham, M. A., Johnson, M. J., Mehlich, A., and Wilson, P. W.
- Fredenburgh, M. N. See Westinghouse Lamp Co.
- Fredenhausen, K., physico-chemical measurements on hydrogen fluoride, A., 344. [with Cadenbach, G., and Klatt, W.], solubilities, conductivities, and b.-p. elevations of solutions of organic and inorganic compounds in liquid hydrogen fluoride, A., 566.  
and Cadenbach, G., determination of molecular b.-p. elevations in hydrogen fluoride, A., 566. Hydrolysis of cellulose by hydrofluoric acid and saccharification of wood by highly concentrated hydrofluoric acid, B., 263.  
and Helfferich, B., degradation of wood and other polysaccharides, (P.), B., 700.  
and Liebster, H., partial pressures and distribution ratios of acetic acid over its aqueous solutions at 25°, A., 120.  
and Wellmann, M., distribution ratios of hydrogen fluoride over the binary system water-hydrogen fluoride at 25°, and b.-p. curve of this system under atmospheric pressure, A., 120. Distribution ratios of hydrogen cyanide and water over the binary system water-hydrogen cyanide at 18°, A., 120.
- Frederick, L. T., and Continental Diamond Fibre Co., composite mica plates, (P.), B., 597.
- Frederick, R. C. See Dudley, S. F.
- Fredericksen, F. M., and Pabst Corp., soft cheese, (P.), B., 683.
- Fredga, A., racemic and active cyclo-tetramethylenediselenididecarboxylic acid, A., 730.
- Fredrich, W., food consumption and digestibility of nutrients by white rats under reduced air pressures, A., 527.
- Fredrickson, W. R., and Stannard, C. R., magnetic rotation spectrum of red bands of sodium, A., 1220.
- Freed, M. See Ferguson, J. B.
- Freed, S., and Harwell, J. G., line spectrum of samarium ion in crystals and its variation with the temperature, A., 5.
- Frédéricksz, V., and Zolina, V., forces causing orientation of an anisotropic liquid, A., 1108.
- Freedland, J. See Antonov, G. N.
- Freedlander, A. L., and Dayton Rubber Manufg. Co., lubricated belt [containing rubber], (P.), B., 159.
- Freeland, E. M., treating silicon-steel sheets, (P.), B., 633.
- Freeland, R. O., morphological and physico-chemical changes accompanying proliferation of *Bryophyllum* leaves, A., 1092.
- Freeman, D., Laybourn, K., and Madgin, W. M., formation of oxyinitrates of lead in molten salts, A., 782.
- Freeman, H., and Sulphide Research Corp., smelting of finely-divided sulphide ores, (P.), B., 833.
- Freeman, J., grass-pollen antigen for hay-fever desensitisation, A., 628.
- Freeman, J. V., preparation of coloured granular [clay] material, (P.), B., 429.
- Freeman, M. See Holden, H. F.
- Freeman, N. E., cortin and traumatic shock, A., 642.
- Freese, F. B. See Baker, J. C.
- Freestone, J. T. See Walker, Ltd., W. & F.
- Frei, J. See Du Pont de Nemours & Co., E. I.
- Frei, W., and Demmel, M., effect of pregnancy and lactation on blood-serum of cattle, with remarks on milk fever, A., 1072.
- Freiberg, I. K., and West, Edward S., glycine synthesis in pseudohypertrophic muscular dystrophy, A., 971.
- Freiberger, M., discharges on indigo [in printing], B., 462. [Wetting agents for] alkaline treatment [bleaching and mercerising] baths for vegetable and regenerated cellulose fibres, (P.), B., 1007.
- Freiburg, A. See Harburger Oelwerke Brinckman & Mergell.
- Freidlin, S. S. See Tschitschenko, V. E.
- Freise, F. W., formation of ore-deposits in lakes, A., 1028. Brazilian species of chenopodium, B., 412. Brazilian essential oils, B., 684. Brazilian balsams and their most frequent adulterants, B., 799. Tests with different kinds of fibre for filter-cloths [for cane-sugar factory work], B., 885. South American rose-wood oil and its original plants, B., 939.
- Freise, M. G. See "Berzelius" Metallhüttenges. m.b.H.
- Freitag, R., sal ammoniac, B., 16.
- Frejka, J., and Zika, J., action of nitrous acid on pyrocatechol-4-sulphonic acid, A., 947.
- Frelinghuysen, G. G., and Ballantine & Sons, P., soap compound, (P.), B., 675.
- French, E. H., water-soluble resins [rosinates], (P.), B., 721.
- French, H. J., and Homerberg, V. O., rôle of nickel in nitriding steels, B., 870.
- French, R. C., polish on metals, A., 769.
- Frenkel, J., possible explanation of superconductivity, A., 769. Conduction in poor electronic conductors, A., 1103.
- Frenkenberg, S. See Hepner, B.
- Frenzel, A. See Hofmann, Ulrich.
- Frenzel, K. See Bausch, V.
- Frercks, W. See Kleinfeller, H.
- Frere, F. J., determination of fluorine in cryolite, A., 242.
- Frèrejacque, M., acetylsulphate and hydrogen sulphate of camphor, A., 830.
- Freri, M., action of ozone on heterocyclic compounds. II., A., 835. 4:5'-Diisoxazoloyl ketone. II., A., 1060.
- Frerichs, G., D.A.B. VI test for arsenic in tartaric acid and its salts, B., 1007.
- Frerichs, R., arc spectrum of sulphur, A., 331.
- Fresenius, L., and Frommes, M., determination of beryllium, A., 922.
- Freud, J., are the substances designated as "anterior pituitary hormone" in urine identical with pituitary substances having a similar action? A., 193. Hypertrophy of seminal vesicles in rats, A., 1338.  
and Dingemans, E., catatonin, a toxic substance of lipid extract of urine, tissue-fluids, and organs, A., 186.
- Freudenberg, F., action of vitamin- and lime-containing preparations, especially of "vitachalk," B., 1033.
- Freudenberg, K., rules of optical activity and their application to elucidation of constitution and configuration, A., 211.  
and Braun, E., 2:3:6-trimethylglucose anhydride, A., 596.  
and Eyer, H., insulin. XI. Chemistry of insulin, A., 321.  
and Mecke, R., rotation-vibration spectrum of water vapour. III., A., 552.  
and Nagai, W., acetone [isopropylidene] sugars and other compounds of carbohydrates. XXIII. Synthesis of cellobiose, A., 148.  
and Soff, K., acetolysis of cellulose, A., 149.  
and Sohns, F., lignin and cellulose. XXI. Lignin, A., 276.
- Todd, J., and Seidler, R., steric series. XVIII. Configuration of the tertiary carbon atom; atrolactic acid, mandelic acid, and related compounds, A., 502.
- Weiss, E., and Eichel, H., insulin. XII. Action of proteolytic enzymes on insulin and its derivatives, A., 321.
- Freudenberg, W., preparation of sarcocollin acid, A., 145. Carbohydrate metabolism. I. Influence of *d*-glucal, *d*-hydroglucal, and *d*-2-glucoseose on blood-sugar, A., 307.  
[with Felton, G. E.], carbohydrate metabolism. II. Rate of metabolism of *d*-2-oxyglucal and styrcitol in the rabbit, A., 307.
- Freudenberger, H. See Staudinger, H.
- Fröund, E., and Heyl & Co., Chem.-Pharm. Fabr. A.-G., [preparation of] compound of hexamethylenetetramine and [methylene]diphosphoric acid, (P.), B., 1047.
- Fröund, H. See Gen. Aniline Works.
- Fröund, J., sodium formate as salt substitute, A., 1319.
- Fröund, M., terpenes as source of petrol-um, and their optically active constituents, A., 141. Action of ultra-violet radiation on benzene hydrocarbons, B., 375.  
and Thamm, S., evaluation of motor lubricating oils, B., 1043.
- Fröundlich, H., investigation of systems with coarse particles and its value for a knowledge of colloidal systems, A., 777.
- Enslin, O., and Lindau, G., influence of foreign substances on adsorption of liquid by non-swelling powders, A., 563. Wetting velocity and flotation, A., 565.

- Freundlich, H., and Rogowski, F., application of Wiener's general mixture formula to colloid-disperse systems, A., 566.
- Rogowski, F., and Söllner, K., effect of ultrasonic waves on gels, especially thixotropic jellies, A., 568.
- and Talalay, N., autoxidation of rubber latex, B., 479.
- and Salomon, G., theory of the ease of ring formation of cyclic imines, A., 399.
- Prolongation of life of  $\beta$ -chloro- $\beta$ -phenylethylamine on charcoal, A., 1112.
- Kinetics of transformation of halogenoalkylamines into heterocyclic compounds. V. Effect of phenyl group on ring opening and closing, A., 1125.
- Freundlich, H. W. F. See Becker, R.
- Frey, A., effect of repeated applications of potash on soil reaction and solubility of phosphoric acid present in soil, B., 438.
- Influence of continuous potash manuring on reaction and phosphoric acid solubility in soils, B., 599.
- See also Niklas, H.
- Frey, A. A. See Westinghouse Electric & Manufg. Co.
- Frey, C. N., Brown, E. B., Craig, C., and Standard Brands, Inc., food products, (P.), B., 170.
- and Standard Brands, Inc., food product [cake], (P.), B., 1034.
- See also Gore, H. C., Internat. Yeast Co., Landis, Q., and Schultz, A.
- Frey, E. K., Kraut, H., and Werle, E., hypoglycemic action of callicrein (padutin), A., 98.
- and Werle, E., callicrein in internal and external pancreatic secretions, A., 1210.
- Frey, F. E., and Hepp, H. J., thermal decomposition of mercury dibutyl, A., 1040.
- Thermal decomposition of simple paraffins, B., 581.
- and Huppke, W. F., equilibrium dehydrogenation of ethane, propane, and the butanes, A., 227.
- Frey, G. Sson, electrical conductivity of crystallised antimony trisulphide, A., 769.
- Frey, J. See Lucke, H.
- Frey, K., determination of sulphur in coke-oven tars of the Donetz basin, B., 374.
- Benzol wash oils from coke-oven tars of the Donetz basin, B., 737.
- Conversion of crude anthracene into pitch, B., 903.
- Frey, O., comparison of the rotary [cement] kiln and high-capacity shaft kiln employing the new burning process, B., 1057.
- Frey, R. W., Clarke, J. D., and Stuart, L. S., "kidney grease" in heavy hides and leather, B., 1071.
- See also Clarke, J. D.
- Freyer, E., quantitative comparison of various accelerated stability tests, B., 876.
- Cooking of cottonseed meats in various gases; effect on properties of the expressed oil, B., 876.
- Change of moisture content of cottonseed products with respect to atmospheric conditions, B., 1017.
- Freyman, R., near infra-red [spectra], A., 1228.
- and Naherniac, A., absorption spectra of benzene derivatives near  $1 \mu$ , A., 1228.
- Frey Engineering Co., test rods, more particularly for blast furnaces, (P.), B., 154.
- 4\*
- Freyss, G. See Goldschmidt, S.
- Freytag, F. C., and Smith, H. G., unsaponifiable lipins of ox liver. I. Methods of separation; crystalline fractions. II. Vitamins-A and -E; antioxidants, A., 523.
- Freytag, H., action of ultra-violet light on pyridine. II. Reactions of photopyridine with naphthylamine- and aminonaphthol-sulphonic acids and with alkalis. IV. Formation of photoproducts from pyridine derivatives in spectrally resolved ultra-violet light, A., 399, 1304.
- and Hlučka, F., action of ultra-violet light on pyridine. III. Photopyridine formation in the spectrum, A., 513.
- and Müller, Adolf, light-sensitivity of 2-benzylpyridine, A., 1256.
- Frick, C., colorimetry, A., 247.
- Frick Co. See Zumbro, F. R.
- Fricke, H., glowing potential of discharge tubes (nitrogen) with varying electrode separation. I. Straight tubes, A., 331.
- and Brownsecombe, E. R., reduction of chromate solutions by X-rays, A., 793.
- and Washburn, M., reduction by X-rays of aqueous chromic acid solutions and influence of added organic substances, A., 1256.
- Fricke, K., explosive conditions in saturated alcohol vapour-air mixtures, A., 232.
- Fricke, R., and Ackermann, Paul, mercurous oxide, A., 579.
- X-Ray and thermal characterisation of lattice formation of zinc oxide, A., 666, 1119.
- and Brümmer, F., equilibria in the system  $\text{Ba}(\text{NO}_3)_2\text{-HNO}_3\text{-H}_2\text{O}$  at  $18^\circ$ , A., 906.
- Lücke, J., and Meyring, K., quantitative study of a simple system of periodic precipitation, A., 776.
- Periodic Liesegang precipitation in non-colloidal media, A., 898.
- and Meyring, K., ageing of fresh aluminium hydroxide gels, A., 1244.
- See also Lücke, J.
- Fricke, W., cross-sectional magnetostriiction, A., 342.
- Fridenson, A. See Girard, André.
- Fridman, K. M., and Tverdokhlebov, L., storing sugar beets in field piles, B., 761.
- Friedel, G., orientation of crystals of organic substances on minerals of ionic structure, A., 214.
- Friedel, H. See Jacoby, M.
- Friedmann, T. E., and Graeser, J. B., determination of lactic acid, A., 488.
- Friedenwald, J., Feldman, M., and Morrison, S., effect of acids and other substances on production of acute gastric ulcers, A., 741.
- Frieder, A. See Herzfeld, E.
- Friederich, E., carbon nutrition of plants, B., 517.
- Friederich, W., detonation of explosives, B., 493, 1086.
- Friedrichs, G., new waxes and their industrial application, B., 28.
- Friedfeld, L. See Fishberg, E. H.
- Friedheim, E. A. H., natural redox system catalysing cell respiration, A., 527.
- Pigment of *Halla parthenopa*, an accessory respiration catalyst, A., 622.
- Biological reversible oxidation-reduction system: the pigment of *Arion rufus*, A., 1183.
- Friedheim, E. A. H., Susz, B., and Bær, J. G., energy of activation and temperature coefficient of a biological reaction (respiration of larvae of *Diphyllobothrium latum*), A., 1192.
- Friedland, I. B., effect of thyroid preparations on experimental hypercholesterolemia and atherosclerosis, A., 1069.
- Friedmann, N. H. See Kailan, A.
- Friedrich, A., determination of nitrogen by Kjeldahl's method, A., 582.
- General applicability of the micro-Kjeldahl determination, A., 621.
- Rhodizonic acid as indicator in determination of barium, A., 1262.
- Friedrich, C. See Friedrich, K.
- Friedrich, K., and Friedrich, C., articles covered by cold process with a glaze-like coating, (P.), B., 63.
- Friedrich, O., minerals in the ore deposits of Klening, Carinthia, A., 253.
- Friedrichs, F., measuring flasks for large volumes of liquid, A., 140.
- Distillation apparatus for water with feed-water regulator and preheater, A., 367.
- Friedrichsen, W. See Alder, K., and Diels, O.
- Friedsam, A. See Braun, J. von.
- Friehmelt, E. See Braun, J. von.
- Friend, J. A. N., and Wheat, W. N., solubility of barium nitrate in water, A., 670.
- Friend, W. H., and Bach, W. J., storage experiments with Texas citrus fruit, B., 523.
- See also Clarke, S. W.
- Friese, C., impregnating of caffeine-free coffee beans with caffeine-free coffee extract, (P.), B., 365.
- Friese, F. W., concrete and industrial gases, B., 966.
- Friess, H. See Schwab, G. M.
- Friess, J. See Boulzaguët, A., and Hugel, G.
- Frigidaire Corporation, and Henne, A. L., fluorination of aliphatic hydrocarbons, (P.), B., 457.
- See also Keyes, F. G.
- Frigiola, N. F., treatment [fireproofing] of wood, (P.), B., 271.
- Frink Corporation. See Bart, B.
- Frisch, R., electron diffraction photographs of microcrystalline carbon, A., 341.
- Anomalies in mirror reflexion and diffraction of molecular rays at crystal cleavage surfaces. II., A., 994.
- Experimental proof of Einstein's radiation recoil collision, A., 1226.
- Phipps, T. E., Segrè, E., and Stern, O., process of space quantisation, A., 108.
- and Stern, O., anomalies in mirror reflexion and diffraction of molecular rays at crystal cleavage surfaces. I., A., 994.
- Magnetic deviation of hydrogen molecules and magnetic moment of the proton. 1., A., 996.
- See also Estermann, J.
- Friscbe, C. A., ionisation and scattering accompanying positive ion impact in gases, A., 333.
- Frisher, H., regeneration of waste sulphuric acid [from oil refining], (P.), B., 306.
- Frish, M. V. See Zakharenko, A. G.
- Frishmut, M. A. See Nikolaiev, V. I.
- Fritsche, O. O., Wahlin, H. B., and Osterle, J. F., thorium oxide, a high-temperature refractory, B., 916.
- See also Wahlin, H. B.

- Fritz, E. A., and Cutler-Hammer, Inc., electrode construction [for thermionic valves, etc.], (P.), B., 555.
- Fritz, F., effects of low temperatures on linseed oil, B., 275. Effect of cooling of [China] wood oil, B., 315. New resin ester, B., 596. Determination of hexabromide number of linseed oil, B., 798.
- Fritz, W. See Jakob, M.
- Fritzell, A. I. See Edmunds, C. W.
- Fritzsche, P. See Streitwolf, K.
- Fritzweiler, R., and Dietrich, K. R., azeotropy and its application to dehydration of ethyl alcohol, B., 11, 649. Dehydration of [ethyl] alcohol, B., 122. Process for producing absolute alcohol by azeotropic distillation, using trichloroethylene, B., 327. Technical application of azeotropy, particularly for dehydration of alcohol, B., 776.
- Froboese, V., absorption of lead by tooth-pastes from tinned-lead tubes, B., 334.
- Frochnow, F., and Findeisen, L., post-operative changes in blood-fat, A., 1190.
- Fröhlich, H., determination of energy states of metal electrons from optical constants, A., 109. Absorption of metals in the visible and ultra-violet, A., 440.
- See also Bethe, H., and Volmer, M.
- Fröhlich, K., influence of "anticoman" on carbohydrate metabolism, A., 745.
- Fröhlich, K. W. See Moser, Hanns.
- Fröhlich, W., graphite for crucibles, B., 19.
- Frölich, E., producing a hardened surface on rubber goods, (P.), B., 1070.
- Froemke, J. A., Bloomquist, C. R., and Anderson, E. X., formation of nuclei from condensed vapours in non-ionised dust-free air. II. System methyl alcohol-water, A., 1110.
- Fröschel, E. See Trautz, M.
- Frohberg, M. H., tourmaline-bearing gold-quartz veins of the Michipicoten district, Ontario, A., 1267.
- Froidevaux, J., examination of milk, B., 603.
- Froiman, A. I. See Palibin, P. A.
- Frolander, F. C. See Czarny, M.
- Frollich, H., absorption spectra of photochemically coloured alkali halide crystals, A., 446.
- Frollich, P. K., and Standard Oil Development Co., treatment [oxidation] of hydrocarbon materials, (P.), B., 295. Normally liquid hydrocarbons from gaseous or lower-boiling hydrocarbon materials, (P.), B., 536.
- See also Forrest, H. O., Standard Oil Development Co., and Wiezevich, P. J.
- Frolov, E. V., oil refining in the Far East, B., 1042.
- Fromageot, C., and Desnuelles, P., synthesis of alanine by yeast during alcoholic fermentation, A., 1204.
- and Moulin, M., micro-determination of lactose by method of Hagedorn and Jensen, A., 732.
- Pelletier, M., and Ehrenstein, P., desmotropy of  $\alpha$ -keto-acids, A., 145.
- and Roux, J., mechanism of activation of glucose in lactic fermentation, A., 1206.
- Fromaget, J., stanniferous region of Nam Pha Thène (Laos), A., 46.
- Fromherz, H., and Schneller, H., reaction of atomic hydrogen with chloroform, A., 372.
- Fromherz, K., evaluation on the frog of glucosides acting on the heart, A., 186. Atropine-like parasympathetic inhibitors, A., 1327.
- See also Bauer, Hellmut.
- Fromm, F. See Hessenland, M.
- Fromm, H., scale formation on dynamo sheets [of iron] with high silicon content, B., 429.
- Frommes, M. See Fresenius, L.
- Frost, A. A., and Alyea, H. N., kinetics of the hydrogen-oxygen low-pressure explosion, A., 1016.
- See also Selwood, P. W.
- Frost, A. V., heat of evaporation of mixtures of ethyl alcohol and water, A., 220.
- See also Buschmakin, I. N., and Vedenski, A. A.
- Frost, F. L., jun. See Grasselli Chem. Co.
- Frost, L. E. See Arnold, R. H.
- Frost, S. W., summer oil emulsions against the Oriental fruit moth and other insects, B., 646.
- Frost, W. S., Cothran, J. C., and Browne, A. W., [preparation and properties of] ammonium azide, A., 1129.
- Frosted Foods Co., Inc. See Tressler, D. K.
- Frosted Wool Process Co. See Greenleaf, R. M.
- Frühwein, H. See Felix, K.
- Frumkin, A., hydrogen over-voltage and structure of double layer, A., 468.
- See also Burstein, R., and Kabanov, B.
- Fry, A., and Krupp Akt.-Ges., F., low-carbon steel, (P.), B., 195.
- Fry, E. G. See Bancroft, G., and Wolff, W. A.
- Fry, H. S., and Butz, R. J., reaction mechanism rule and its application to action of fused alkali hydroxides on carbon compounds, A., 370.
- and Treon, J. F., action of concentrated aqueous sodium hydroxide on nitromethane, A., 1271.
- Fry, M. A. See Bartow, E.
- Fry, T. C. See Ives, H. E.
- Fry, W. H., petrographic methods for soil laboratories, B., 401.
- See also Merz, A. R.
- Fryd, C. F. M. See McGregor, P.
- Fuchs, E., fog formation [in photographic emulsions] by chemical reactions, A., 473.
- Fuchs, F. E., and Singer, S. J., use of pine oil in emulsion breakers, (P.), B., 739.
- Fuchs, G. H. von, copper as refining agent for petroleum distillates, B., 374.
- Fuchs, L., distribution of arsenic in the organism after cutaneous resorption of therapeutic doses, A., 423. Fineness of division of mercury in unguentum hydrargyri cinereum and microscopical examination of unguentum hydrargyri album and flavum, B., 571.
- Fuchs, N., theory of unimolecular adsorbed film, A., 672. Kinetics of oil drying, B., 114. Microscopical detection of mineral oil in linseed oil, B., 798.
- and Petrianov, I., determination of size and charge of mist droplets, A., 1266.
- Fuchs, O., and Donle, H. L., dependence of dipole moment on solvent, infra-red terms, and linking moments, A., 888.
- Fuchs, P., systematic measuring out of samples as a practical help in volumetric and gravimetric analysis, A., 41.
- Fuehs, W., preparation of powder for making custards, puddings, creams, sauces, ice-creams, and similar boiled products, (P.), B., 170.
- Fuchs, Walter, Aachen chalk coals; application of their study to theory of the formation of bituminous coals, A., 253. Active carbon from fuel ash, B., 178.
- Gagarin, R., and Kothny, H., effect of brown coal and products derived from it on plant growth, B., 402.
- Fudge, J. F. See Fraps, G. S.
- Füchtbaner, C., and Gössler, F., opposite asymmetry of widening of different lines of a series, A., 655. Displacement and asymmetric widening of absorption lines by foreign gases, A., 1096.
- Fühner, H., and Breipohl, W., temperature and sensitivity to poisons, A., 1327.
- Fuel Development Corporation. See Kimball, L. B.
- Fünfer, E., secondary effects of cosmic rays, A., 763.
- Fürst, K., determination of sulphur in asphalts, B., 497.
- Fürstenau, E. See Kurtenacker, A.
- Fürth, O., and Edell, Emil, determination of uric acid; uric acid content of normal and diseased liver, A., 967.
- and Majer, E. H., storage of carbohydrate in liver of fat-fed rats, A., 855. Phloridzin glycosuria in pigs, A., 859. Utilisation of aliphatic acids by moulds, A., 982. Glyoxaline derivatives in urine, A., 1068.
- and Scholl, Rudolf, effect of lecithin and sodium chloride on solubility of fatty acids in salts of bile acids, A., 345. Mechanism of phenylechinomic intoxication, A., 1327. Colloid changes produced by antipyretics and analgesics and their supposed relation to excitability of nervous centres and to liver injury, A., 1327.
- Scholl, Rudolf, and Herrmann, H., occurrence in urine of phenolic substances detected by Millon's reaction, A., 179. Effect of germanin (Bayer 205) on lactic acid formation, A., 317.
- Fürth, R., diffusion in liquids. I., A., 17. Calculations relating to transport of material in the organism, A., 626. Neutrons and positive electrons, A., 1100.
- Fuess, J. T. See Staud, C. J.
- Fujii, Masao. See Murata, K.
- Fujii, Mitsuo. See Atsuki, K.
- Fujii, Mitsuo, and Asaoka, K., effect of small quantities of magnesia on colour of Portland cement clinker and on formation of alite. II., B., 466.
- Fujimaki, Y., Arimoto, K., Kimura, T., and Tani, I., determination of  $pH$  of the blood of sarcoma rabbits, A., 1321.
- Fujimoto, B., cytotoxin. I. Influence of hepatotoxin on liver-function, A., 860.
- Fujimoto, H., catalytic reaction of reduced nickel on the methane-water reaction, A., 790.
- Fujimoto, Y., point of attack of pituitrin on antidiuresis and on sodium chloride excretion, A., 754.
- Fujimura, K., and Tsuneoka, S., benzene synthesis from carbon monoxide and hydrogen at atmospheric pressure. XII.—XVI., B., 7, 452, 773.
- Fujino, S. See Katō, Y.
- Fujise, S., and Nishi, T., attempted synthesis of demethoxymatteucinol, A., 832.

- Fujita, K., applications of diamine dye group in histology. I. Vital stains. II. Electric charge of dyes, their chemical structure, and vital staining. III. Diffusibility and solubility in lipin of dyes and vital staining, A., 176. Vital staining with diamine dyes, A., 625.
- Fujiwara, H., colour reactions of strychnine and strychnine nitrate, A., 1176.
- and Kataoka, E., Folin-Denis colorimetric method, A., 654.
- and Tsunoo, S., embryo-chemistry of *Amphibia*. II. Perivitelline fluid of salamander eggs, A., 966.
- See also Tomita, M.
- Fujiwara, T., and Noguchi, Tatsuya, dispersion of rubber in gasoline, B., 757.
- Fukami, Y. See Nakai, T.
- Fukuda, Y., theoretical investigations on the combustion of carbon. I. General equation of velocity of combustion, A., 787.
- See also Oshima, Yoshiakiyo.
- Fukui, S., and Murata, M., hormone of anterior pituitary lobe, A., 322.
- Fukushima, Y. See Tanaka, Y.
- Fukusima, E., effects of mechanical strain in intensity of X-rays reflected by a crystal, A., 605.
- Fukusima, M. See Iwasé, K.
- Fukuyama, M. See Okuno, T.
- Fulcher, G. S., and Corning Glass Works, [cast] refractory article, (P.), B., 670.
- Fuld, H. See Thannhauser, S. J.
- Fulde, A. See Thielepape, E.
- Fuller, A. D. See Nat. Adhesives Corp.
- Fuller, A. T., ketogenic diet; nature of bactericidal agent, A., 985. Bactericidal substance in urine of patients receiving a ketogenic diet, A., 1084.
- Fuller, G. J. A. See Fuller, L.
- Fuller, G. P., Daviss, C. A. V., and Michael, E., electrodeposition of iron, (P.), B., 635.
- Fuller, H. Q. See Loomis, F. W.
- Fuller, I. K., and Contact Filtration Co., treatment of spent adsorbents, (P.), B., 821. Decolorising oils [by means of clay], (P.), B., 855.
- Fuller, J. E., influence of legume *versus* non-legume crops on microbiological activities in soil. II. Nitrification and cellulose decomposition, B., 727.
- and Jones, L. H., influence of temperature on nitrate content of soil in presence of decomposing cellulose, B., 81.
- Fuller, L., Fuller, G. J. A., and Sudlow, E. W., electrical storage batteries, (P.), B., 73.
- Fuller, M. L., and Rodda, J. L., segregate structures of Widmanstätten type developed from solid solutions of copper in zinc, A., 454.
- Fuller, T. S. See Brit. Thomson-Houston Co.
- Fuller & Co., W. P. See Amieva, M. M., jun.
- Fullerton, R. G. See Wiltshire, J. L.
- Fulmer, E. I., thermodynamics of cell reactions, A., 96.
- Christensen, L. M., and Kendall, A. R., production of  $\beta$ -butylene glycol by fermentation; effects of sucrose concentration, B., 762.
- Fulton, C. C., test for phenols and copper, A., 245.  $\beta$ -Naphthol test for copper, A., 364. Test for aspirin, salicylic acid, and manganese, A., 365. Identification of cocaine and novocaine, A., 1180.  $\psi$ -Morphine from morphine, A., 1313.
- See also Williams, G. D.
- Fulton, J. M. See Shriner, R. L.
- Fulton, R. R., and Koppers Co. of Delaware, preparation of hydrocyanic acid, (P.), B., 588.
- Fulton, S. C. See Standard Oil Development Co.
- Fulweiler, W. H., gum problem in town gas, B., 49.
- See also Ward, A. L.
- Funk, E. M. See Brody, S.
- Funk, H., fine-grain development, B., 652.
- and Ditt, M., determination of metals with anthranilic acid. I. Determination of zinc and cadmium and their separation from the alkaline earths. II. Cobalt, nickel, and copper, A., 244, 924. Volumetric analysis of anthranilic acid and its salts, A., 621.
- See also Angerer, E. von.
- Funk, W., and Miels, M., colorimetric determination of lead, especially in water, B., 286.
- Funke, G., band spectrum of barium hydride, A., 992.
- Funke, K., porylene and its derivatives. XXXVII. Oxidation of dinitro- and diamino-perylene, A., 498. Natural substances of high mol. wt., B., 541.
- Funsten, S. B., Perkins, I. M., and Atlantic Refining Co., removal of wax from oil, (P.), B., 295.
- Fuoss, R. M., conductivity in solvents of very low dielectric constant, A., 908.
- and Kraus, C. A., electrolytic solutions. II. Evaluation of  $\Lambda_0$  and  $K$  for incompletely dissociated electrolytes. III. Dissociation constant. IV. Conductance minimum and the formation of triple ions due to the action of Coulomb forces. IX. Conductance of salts in benzene, A., 353, 464, 785, 1120.
- See also Kraus, C. A., and Onsager, L.
- Furia, A., concentration by flotation; molecular forces, B., 991. Soap. III. Settled soap, B., 1065.
- Furlani, J., electrolyte concentration in soils; relationships between carbonate and silicates in solution, B., 117.
- Furman, N. H., ceric sulphate in volumetric analysis. X. Determination of antimony and arsenic, A., 43.
- and Low, G. W., jun., use of tungsten-nickel electrode system in neutralisations, A., 572.
- See also Allen, N., and Schoonover, I. C.
- Furman, W. F., high-chromium iron alloys for castings, B., 1059.
- Furnas, C. C., gas bubbler for very small pressure drops, A., 926.
- and Newton, R. H., design of grid-packed cooling towers, B., 655.
- Furness, W. H., apparatus for treating artificial [rayon] threads, filaments, etc., (P.), B., 143.
- and Furness Corp., [euprammonium] silk, (P.), B., 1004.
- Furness Corporation. See Furness, W. H.
- Furry, W. F., excited electronic states of  $\text{Li}_2$ , A., 1095.
- Furter, M. See Ruzicka, L.
- Furukawa, S., stereochemistry of aliphatic ketoximes, A., 377. Constituents of the leaves of *Ginkgo biloba*, L. III. and IV., A., 1168.
- See also Shibata, F. L. E.
- Furukawa, T. See Sakurada, J.
- Furumoto, H. See Tanaka, Y.
- Fuse, M. See Asahina, Y.
- Fuseya, G., Mori, M., and Imamura, H., f.p. of the system  $\text{MgF}_2\text{-BaF}_2\text{-CaF}_2$ , A., 782.
- Fuson, R. C., Bertetti, J. W., and Ross, W. E., haloform reaction. VII. Effect of *ortho* chlorine atoms, A., 66.
- Kozacik, A. P., and Eaton, J. T., reversible addition of aromatic compounds to conjugated systems, A., 1170.
- and Ross, W. E., coupling action of the Grignard reagent. IV. Benzylidene chloride and benzotrichloride, A., 385.
- See also Babcock, S. H., jun., Bull, B. A., Ellingboe, E., Hoffman, A., and Woodward, C. F.
- Fussteig, R., recent [developments in] petroleum distillation, B., 211. Determination of paraffin in crude oil by means of a mixture of ether, ethyl alcohol, butanone, and phenol, B., 339.
- Fustier, P., and Soc. Anon. J. Bocuze & Co., production of enamelled copper wire for electrical purposes, (P.), B., 1063.
- Futagami, T. See Nagaoka, H.
- Fuwa, K. See Gen. Electric Co.
- Fuzikawa, F. See Asahina, Y.
- Fuzita, S., effect of bile acids on carbohydrate metabolism. XX. Glycogen synthesis by bile salts on administration of different amino-acids, A., 630.
- Fuziwara, K., bile acids and carbohydrate metabolism. XXIV. Blood-sugar curve under the influence of bile acids and adrenaline with and without spleen extract in splenectomised rabbits. XXV. Production of glycogen in the liver of splenectomised rabbits following administration of bile acids. XXVI. Production of glycogen in the livers of splenectomised rabbits receiving adrenaline, cholic acid, and spleen extract, A., 308, 523, 1193.
- Fyr-Fyter Co. See Iddings, R. C.
- Fyurst, L. Y. See Denisevich, V. P.

G.

- G.-M. Laboratories, Inc. See McMaster, A. J.
- G.W.B. Electric Furnaces, Ltd. See Van Marle, M.
- Gabbard, J. L. See Bedford, M. H.
- Gabiano, P., magnetic rotatory power of gases and vapours, A., 1001.
- See also De Malleman, R.
- Gable, H. S., extraction of germanium from germanium-bearing spelter retort residues, B., 351.
- Gábor, D., electrostatic theory of the plasma, A., 992.
- See also Reiter, T.
- Gabriel, L. G. See Colas Products, Ltd.
- Gabriel, M. T., cortical cells of Merino, Romney, and Lincoln wools, B., 55.
- Gabryelski, W., and Marchlewski, L., absorption of ultra-violet light by organic substances, XXVIII, A., 661. Reducing sugars. II. and IV., A., 810, 1278.
- Gachard, R., menthenes and menthadienes, A., 717.
- See also Dupont, G.
- Gaddy, V. L. See Clark, K. G., and Wiebe, R.

- Gaebler, O. H., effect of anticoagulants on determination of inorganic phosphate and protein in plasma, A., 294. Effects of anterior pituitary extracts on nitrogen metabolism, water balance, and energy metabolism, A., 869.
- Gächter, K. See Sängler, R.
- Gaehr, P. F., Ångström's total immersion hydrometer, A., 481.
- Gaertner, O., relative ionisation of air, nitrogen, oxygen, and argon with the Cu-A $\alpha$  line, A., 441.
- Gärtner, R. See Eschenbrenner, H.
- Gafron, H., metabolism of sulphur-free purple bacteria, A., 639. Mechanism of activation of oxygen by irradiated pigments, A., 1214.
- Gagarin, R., extraction apparatus for small quantities of substances, A., 480. Action of preparations of coal on plant growth, B., 359. See also Fuchs, Walter.
- Gage, H. P., colour filters for altering colour temperature; pyrometer absorption and daylight glasses, A., 366.
- Gage, J. C., standardised preparation of digitalin for injection, A., 977.
- Gagnon, P. E., and Gravel, L.,  $\beta$ -anthronyl- $\beta$ -phenylpropionic acid and its derivatives; synthesis of 3-(9-anthronyl)-hydrindone, A., 949.
- Gaines, A., jun., potentiometric titration of strongly coloured fruit solutions containing added phosphoric acid, B., 41.
- Gaines, W. L. See Overman, O. R.
- Gainey, P. L., and Briscoe, F., length of incubation period in physiological studies of bacteria, B., 1028. and Sewell, M. C., rôle of nitrogen in production of spots in wheat fields, B., 36.
- Gais, E. S., observations on various insulin mixtures administered *per os*, A., 431.
- Gaiser, O., and Alpine A.-G. Maschinenfabr. & Eisengiesserei, crushing and grinding machine, (P.), B., 768.
- Gaisman, L., plantation rubber products, (P.), B., 239.
- Gajdos, A. See Fiessinger, N.
- Gajendragad, N. G., Jatkar, S. K. K., and Watson, H. E., equilibrium between dimethyl ether, methyl alcohol, and water, A., 25.
- Gajsinovitch, E. See Petin, N. N.
- Galadshiev, M. A., and Malm, E. N., action of carbon dioxide on marine infusoria, A., 91.
- Galahitskaja, K. See Schablikin, P.
- Galameeva, A. See Adadurov, I. E.
- Galatis, L., and Megaloikonomos, J., determination of diphenylamine by bromination, especially in the analysis of smokeless powders, B., 1086.
- Galder, H. C. van. See Muggleton, G. D.
- Gale, H. G., and Hoag, J. B., spectrum of Li III, A., 199.
- Gale, W. A., Ritchie, C. F., and Amer. Potash & Chem. Corp., detergent and water-softening product, (P.), B., 547. See also Allen, W. H., and Ritchie, C. F.
- Galema, H. P. See Kruyt, H. R.
- Gales, N., and Pensa, A. J., determination of small amounts of hydrocyanic acid, A., 478.
- Galestin, G. J. A., is elementary nitrogen absorbed by nodules on the roots of *Leguminosae* in assimilation of atmospheric nitrogen? A., 437.
- Galfajan, G. T., electrolytic reduction in analytical chemistry, A., 138. and Tarajan, W. M., quantitative electrolytic reduction of iron, A., 584. Determination of silica in silicates by the difference method, A., 687.
- Galibourg, J., influence of elongation by successive tractions, followed by ageing, on the elastic limit, and Young's modulus of soft steel, B., 152. Peculiarities in the elastic limit-temperature curve of steel, B., 230. Ageing of metals [steel and nickel] after cold-drawing, B., 830. See also Guillet, L.
- Galimberti, F., 2-phenyl-1':2'-naphthiminazole, A., 616.
- Galimberti, G., and Peverelli, G., rubber coating compositions for varnishing fabrics, leather, etc., (P.), B., 596.
- Galimberti, P. See Crippa, G. B.
- Galinovsky, P. See Späth, E.
- Gall, H., and Roth, H., hydrazinates of silver halides, A., 1128.
- Gallais, F., potassium iodomercureate, A., 37. Silver iodomercureate, A., 239.
- Gallart, G. G. S., alcohol hydrates, A., 220.
- Gallart, J. M., anodic formation of peroxides, A., 471. Dissociation constant of hypochlorous acid, A., 1012.
- Gallay, W., sorption of tannic acid by proteins and mechanism of vegetable tanning, A., 20. Structural viscosity in lyophilic sols. I. Flocculation of gelatin and casein by agar. II. Rubber sols, A., 349.
- Galle, E., mixed fertilisers containing nitrogen, B., 933. and Klatt, R., rapid determination of iodine value as an aid to evaluation of motor benzols, B., 901.
- Gallego, M. See Montequi, R.
- Galley, R. A. E. See Farmer, E. H.
- Gallie, G., and Scott, J. R., effects of addition of selenium on properties of vulcanised rubber, B., 116. See also Dawson, T. R.
- Gallion, F. J. See Hartman, R. J.
- Gallo, G., and Fragapane, G., aluminium-chromium alloys, B., 1062.
- Gallo, M. See Vodret, F. L.
- Gallotti, M., industrial preparation of phenacetin and guaiacol, B., 540. and Beretta, A., economics effected in synthesis of benzanthrone and its homologues by means of Friedel and Crafts' reaction, A., 160. and Moggi, A., direct sulphonation of natural substances containing higher alcohols, B., 997.
- Gallsworthy, B., and Texas Co., cutting oil, (P.), B., 580.
- Gallus, H. P. C., investigations on irrigated pastures. II. Chemical composition of irrigated pastures at Wood's Point, S. Australia, B., 323.
- Galopin, R. See Gutzeit, G.
- Galperin, D., Tumarkin, D., and Kozlovski, B., comparison of bleaching of cotton cellulose by means of aqueous calcium and sodium hypochlorite, B., 782.
- Galpern, G., determination of benzene hydrocarbons in gasoline by the aniline-point method, B., 212.
- Galter, E., wheat evaluation on a commercial basis, B., 809.
- Galuszkówna, L. See Dziewónski, K.
- Galvin, A. C. See Nolan, J. J.
- Galvin, A. F., sizing of textile fibres, (P.), B., 913.
- Gambarjan, S., Cialtician, O., and Babajan, A., benzoyl peroxide and benzylamine, A., 501. and Kazarjan, L., acyl peroxides and secondary amines, A., 939.
- Gambarotta, V., utility and applications of ozone, B., 546.
- Gamble, C. A. See Zerban, F. W.
- Gamichon, P., metallic lead, (P.), B., 235.
- Gamm, W., solution of resins in alkali. II. Preparation of resin solutions in the paper industry, B., 276, 355. See also Ostwald, Wolfgang.
- Ganimay, H. See Chemicon A.-G.
- Gamow, G., mechanism of  $\gamma$ -excitation by  $\beta$ -disintegration, A., 204. Nuclear energy levels, A., 443. Fundamental state of nuclear  $\alpha$ -particles, A., 551. Quantum theory of nuclear structure, A., 996.
- Gamper, O. See Haner, C.
- Gamrath, H. R. See Gomberg, M.
- Ganapati, K. See Chakravarti, S.
- Gauassini, D., generic and specific identification of blood by Ganassini reaction, A., 622. Ureometer, A., 1094.
- Gandini, A., oxidation in presence of absorbent charcoal, A., 389. Chlorinated derivatives of cineole, A., 830.
- Ganesan, A. S., and Thatte, V. N., Raman effect in organic nitrates, A., 114. See also Thatte, V. N.
- Gangl, J., and Becker, F., colouring of cheese by tinfoil, B., 730.
- Gangloff, W. C. See Adams, E. M.
- Ganguli, A., Raman effect, A., 208. Electrical adsorption and stability of colloids, A., 777.
- Ganguli, R. See Banerji, D.
- Ganguly, H. D. See Boyd, T. C.
- Gann, J. A., Brooks, M. E., and Dow Chem. Co., casting freely oxidisable metal, (P.), B., 795. and Dow Chem. Co., purifying light metal [magnesium and its alloys], (P.), B., 553. Metallic powder, (P.), B., 554. Casting readily oxidisable metals, (P.), B., 554. Magnesium-manganese-zinc alloys, (P.), B., 794.
- Gross, W. H., and Dow Chem. Co., treatment [colouring] of magnesium, (P.), B., 834.
- Reid, J. B., and Dow Chem. Co., casting of magnesium and its alloys, (P.), B., 925.
- Reynolds, F. L., and Dow Chem. Co., magnesium-base alloys, (P.), B., 714. See also Dow Chem. Co.
- Gans, D. M. See Harkins, W. D., and Ryan, L. W.
- Gans, R., ferromagnetic single crystals, A., 14. and Czerlinsky, E., supplement to theory of magnetisation curves of ferromagnetic single crystals, A., 449. and Harlem, J. van, changes in resistance of ferromagnetic crystals, A., 116. Magnetostriction of ferromagnetic crystals, A., 342.
- Gansser, A., testing of tannins with animalised cotton cloth, B., 319. Sulphite-cellulose liquor [in tanning], B., 598. Hides and skins; report of a Committee of Society of Leather Trades' Chemists, B., 802.
- and Vogel, W., [vegetable] tanning materials; report of a joint Committee of Society of Leather Trades' Chemists and the I.V.L.I.C., B., 802.



- Gante, T., and Zimmer, R., control of the cochineal insect (*Eulecanium corni*, Behe.), B., 86.
- Gantz, E. St. C. See Waldbauer, L.
- Ganucheau, J. J., and D'Aquin, E. L., water-washing of crude cottonseed oil, B., 877.
- Gapon, B. N., theory of atomic nuclei. I.—V., A., 111, 335, 443, 660, 995. Pauli's principle and structure of the atomic nucleus. III. Mechanical moment of atomic nuclei, A., 206. Relation between energy of activation and the constant *S* of Arrhenius' equation. II., A., 231. Models of atomic nuclei, A., 335. Reciprocal adsorption in soils. I.—III., B., 725.
- Garbaczówna, J. See Krause, A.
- Garbutt, F. A. See Hatherell, G. A.
- García, I. See Roche, (Mme.) A.
- García-Banús, A., fractional distillation at reduced pressure, A., 926.
- and De Salas, E., diphenylindenes. II. Dehydration of benzylhydrobenzoin and formation of 1:2-diphenylindene, A., 1042.
- and Guiteras, J., preparation of diphenyl, A., 1042.
- and Masriera, M., influence of a magnetic field on viscosity of colloids, A., 779.
- García-Blanco, J., and Comesaña, F., biochemical changes in the blood in intestinal obliteration, A., 1071.
- and Vidal, O., distribution of indole between plasma and red corpuscles, A., 1065. Micro-determination of indole in blood-plasma, A., 1065.
- Gard, E. W. See Black, J. C.
- Gardam, G. E., and Macnaughtan, D. J., effect of annealing on microstructure and mechanical properties of electro-deposited nickel, B., 751.
- See also Macnaughtan, D. J.
- Gardiner, H. C., and Anaconda Copper Mining Co., preservation of timber, (P.), B., 270.
- Gardiner, R. F. See Walton, G. P.
- Gardner, E. W., Felder, D. H., and Texas Co., plastic [roofing] composition, (P.), B., 708.
- Gardner, H. A., aluminium paints, B., 29. Road-marking paints, B., 76. Paint failure on cement floor, B., 77. Effect of plasticisers on ageing of nitrocellulose, B., 77. Polystyrol resin exposure test, B., 77. Sugar resins, B., 78. Delustred regenerated cellulose [filaments], (P.), B., 544. Regenerated cellulose films and sheets [of high water-resistance and electrical insulation], (P.), B., 544. [Strengthened] cellulosic materials, (P.), B., 544. [Strengthened and delustred] cellulosic material [by extrusion], (P.), B., 545\*. Modifying characteristics of pigments, (P.), B., 755. [Tung oil] varnishes produced by blowing, B., 977. Construction defects and other factors which cause paint failures or which influence the durability of exterior paints on wood surfaces, B., 1066. Qualitative test for water in paint, B., 1067. Apparatus for testing texture and dispersion [of ground paints], B., 1067. Clear coatings for metal signs, B., 1068.
- and Hart, L. P., quick-drying house paint tests and graphic method of recording defects, B., 29. Anti-oxidants [for varnishes], B., 77.
- Gardner, H. A., and Hart, L. P., glycerol phthalate solid colours, B., 975. Built-up coatings for underground pipes [in hot areas], B., 976. Painting sheet copper, (P.), B., 976. Copper and other metallic powders in paints, (P.), B., 976. Copper stains on white paint, B., 976. Inspection results on three series of quick-drying house-paint tests, B., 1018.
- Hart, L. P., and Stewart, J. R., primers for freshly plastered surfaces, B., 29.
- Hart, L. P., and Sward, G. G., mildew prevention on painted surfaces, B., 1067.
- and Stewart, J. R., chlorinated rubber resins, B., 78. Possible effect of anti-skining agents in increasing the life of varnish, B., 977.
- and Sward, G. G., varnish exposures—sulphur as anti-oxidant, B., 77. Paints for exhibit buildings, (P.), B., 976. Adhesion of coatings to Parkersised and Bondersised metal, (P.), B., 976. Preservation of fresco for exterior decoration, B., 976. Accelerated tests for metal preservatives for sub-sea-water service, B., 976.
- See also Hart, L. P.
- Gardner, J. H., anthracene drugs, B., 172.
- Clarke, (Miss) D. V., and Semb, J., local anaesthetics containing the morpholine ring. II., A., 960.
- and Schneider, J. H., local anaesthetics containing the piperazine ring, A., 1171.
- See also Dunlop, R. D.
- Gardner, R. See Hockensmith, R. D.
- Gardner, R. A., method and apparatus for taking X-ray photographs, (P.), B., 93.
- Gardner, W. H., nature and constitution of shellac. V. Effect of small amounts of certain impurities, B., 596.
- Whitmore, W. F., and Harris, H. J., nature and constitution of shellac. VI. Preparation of heavy-metal soaps of refined bleached shellac, B., 638.
- See also Weinberger, H.
- Gardner, W. K. See Caven, R. M.
- Gardner & Harvey Co. See Harvey, A. R.
- Gardner Laboratory, Inc., H. A. See Bielouss, E.
- Gardner-Richardson Co. See Swan, J. H.
- Garelli, F., determination of phosphorus and arsenic in organic compounds by means of the bomb calorimeter, A., 1179.
- and Carli, B., determination of arsenic in organic compounds by the calorimetric bomb, A., 621. Determination of phosphorus in organic compounds by the calorimetric bomb, A., 621.
- and Racciu, G., phenyl phosphate as a solvent in cryoscopy. I and II., A., 22.
- and Tettamanzi, A., detection of tri-(hydroxyethyl)amine and a new reaction of cobaltous salts, A., 813. Alcoholysis of metallic salts by tri-hydroxytriethylamine, A., 1280.
- Garey, R. M. See Henwood, A.
- Garino-Canina, E., *β*-butylene glycol and acetylmethylcarbinol in wines and vinegars, B., 362.
- Garland, C. E. See Bartlett, J. F., and Lilly, V. G.
- Garlick, H. S., hydrogenation of petroleum, B., 948.
- Garman, W. De W., high-speed centrifuge, B., 847.
- Garner, Frank Harold, and Sanders, H. G., sulphuric acid treatment of sugar-beet seed, B., 244.
- Garner, Frederick Horace, and Evans, E. B., knock rating of naphthene and aromatic hydrocarbons, B., 375.
- and Kelly, C. L., kinematic viscosity and efflux time, B., 287. Kinematic viscosity and conventional viscosity units, B., 767.
- See also Bowen, A. R.
- Garner, T. L., control rubber testing, B., 239.
- Garner, W. E., Gomm, A. S., and Hailes, H. R., thermal decomposition of solids, A., 1251.
- and Hailes, H. R., thermal decomposition and detonation of mercury fulminate, A., 470.
- and Moon, C. H., acceleration of decomposition of crystals of barium azide by emission from radium emanation, A., 473. Acceleration of decomposition of solids by emission from radium, A., 1256.
- Garnett, H. J. See Smith, W. S.
- Garofeannu, M., and Ioan, H., formation of leucocyte protease during immunisation, A., 175.
- Garraff, D. C. See Dorée, C.
- Garre, B., and Mikulla, H. J., lead alloys resistant to sulphuric acid, B., 672.
- and Vollmert, F., hardenable lead alloys, A., 218.
- and Walsdorff, A., fibrous structure of cold-rolled iron, B., 672.
- Garreau, (Mlle.) Y. See Parrod, J.
- Garrett, A. B. See Johnston, Herrick L.
- Garrett, J. W. See Hurd, C. D.
- Garrett, O. F., and Mitchell, H. H., application of paired feeding method to determination of vitamin-A content of foods and artificial concentrates, A., 1212.
- Garrett, R. M., canning of milk and other [food] products, (P.), B., 283.
- Garrick, F. J., co-ordination. IV. Fluorides and chlorides and their complex ions, A., 27.
- Garrido, J., crystal structure of ammonium iodate, A., 116. System bismuth-tellurium-sulphur; orcutite, A., 906.
- Garrison, C. W., and Koppers Co., gas purification, (P.), B., 99.
- Garsen, J. E., [magnetic] susceptibility of mixtures of substances of high electric moment, A., 345.
- Garthe, E. See Hess, K.
- Garthein, C. W., series in the spectrum of germanium II, A., 199.
- Gartner, E., and Ruch, M., artificial leather, (P.), B., 320.
- Garton, F. L. See Hebl, L. E.
- Garve, T. W., modern waste-heat tunnel dryers, B., 267.
- Garvey, B. S., jun., and White, W. D., chemistry of soft rubber vulcanisation. I. Measurement of vulcanisation, B., 978.
- Garvie, J., blast apparatus for [boiler] furnaces, (P.), B., 97.
- Garweg, A., case-hardening of tools of iron or steel, (P.), B., 472.
- Gary, L. J., and Universal Oil Products Co., conversion of [hydrocarbon] oils, (P.), B., 52.
- Gary, W. W., and Middleton, C. O., treatment of petroleum, (P.), B., 902.
- Rubin, L. C., and Ward, J. T., total heats of gas oils at elevated temperatures and pressures, B., 293.

- Gary, W. Y. See Sands, L.
- Gas Chambers & Coke Ovens, Ltd., Lymn, A. H., and Ritson, F., apparatus for heat treatment of coal or other solid material, (P.), B., 815.
- Gas Fuel Corporation. See Russell, R. H.
- Gas Industries Co. See Levin, I. H.
- Gas Light & Coke Co., Leech, W. J. B., Hay, S., Hollings, H., and Burton, A. E., dip of seal pipes for use in manufacture of gas or in coke-oven plant, (P.), B., 775.
- and Siderfin, N. E., carbonisation of fuel briquettes, (P.), B., 534.
- Gas Machinery Co. See Hamlink, L. C., Kleinman, H. A., and Russell, W. M.
- Gaskill, E. C., zinc sulphide, (P.), B., 61.
- Gaskins, E., and United States Gypsum Co., chemical printing [on paper sheets, etc.], (P.), B., 665.
- Gasoline Products Co., conversion of hydrocarbon oils, (P.), B., 694.
- See also Black, J. C., Cross, R., Cross, W. M., Davis, A. G., Howard, F. A., Keith, P. C., jun., and Snelling, W. O.
- Gasopoulos, I., reducing action of ferrous oxalate on azoxy-compounds, A., 388.
- Gasow, H., control of "leather jackets" (*Tipula palmidosa*, Mgn., and *T. oleracea*, L.) by chemical methods, B., 484.
- Gáspár, B., coloured photographic images and cinematograph films, (P.), B., 813, 941. Multi-colour photographic images and cinematograph films, (P.), B., 941. Multi-colour photographic images, particularly coloured films, (P.), B., 941.
- Gaspar y Arnal, T., reagent for lithium in presence of other alkalis; separation of lithium and magnesium; determination of lithium; separation of arsenites and arsenates, A., 688.
- Gaspari, E. L. See Neill, J. M.
- Gassner, F., impregnation of organic aggregates for plastic masses, (P.), B., 1020.
- Gassner, G., new pickling method for control of smut in wheat, B., 518.
- and Goeze, G., effect of parasitoides on assimilation by plant leaves, A., 330. Dependence of assimilation of young cereal leaves on potash nutrition of plants, B., 1026.
- and Hassebrauk, K., influence on infection by rust of the immersion of inoculated leaves in solutions of mineral salts and other substances, A., 654.
- Gassner, O., continuous production of nitroglycerin, B., 413.
- Gastell, A. See Steinke, E. G.
- Gastinger, E. See Schmid, Hermann.
- Gaston, D. See Jordan, E. P.
- Gately, C. M., total heats and specific heats of petroleum waxes, B., 293.
- Gates, L. W. See Klarmann, E.
- Gates, R. F. See Andrus, W. De W.
- Gatterer, A., and Philippi, E., do haemocyanins contain other metals besides copper? A., 622.
- Gatti, J. See Murseh, J.
- Gatty, O. See Clark, D. N., and Cragford, S. R.
- Gatyas, L. W. See under Gates, L. W.
- Gatzek, W. See Brenner, P.
- Gaubert, P., rotation of crystals floating on liquid surfaces, A., 115. Foreign matter in solid solution and stability of crystals, A., 570. Phloridzin crystals, A., 570. Calcium sulphate hemihydrate and its products of dehydration, A., 916. Crystal forms of carbamide oxalate and nitrate, A., 1235.
- Gaudin, A. M., flotation [of zinc ores], (P.), B., 674. Separation of minerals by flotation, (P.), B., 924.
- and Malozemoff, P., recovery by flotation of mineral particles of colloidal size, B., 631.
- and Wilkinson, W. D., surface actions of organic sulphur compounds on finely-ground sulphide minerals, A., 1258.
- Gaudit, J. See Martin, J.
- Gaukerke, C. G. See Du Pont de Nemours & Co., E. I.
- Gauger, A. W. See Barrett, E. P.
- Gault, H., and Germann, L. A.,  $\beta$ -hydroxymethyl- $\Delta^2$ -buten- $\gamma$ -one, A., 1144.
- Gaunt, R., [cellulosic] material for use in coating and plastic compositions, (P.), B., 478.
- Gaupholm, E. O. E., fuel briquette, (P.), B., 534.
- Gaus, W. See I. G. Farbenind.
- Gause, G. F., toxicity of alkaloids; combination of nicotine with caseinogen, A., 531. Certain properties of toxicity curves, A., 538.
- Gautheret, R. See Guilliermond, A.
- Gauthier, D., and Gauthier, P., preparation of styrenes, A., 815.
- Gauthier, E. A. See Bernardini, F.
- Gauthier, P. See Gauthier, D.
- Gautier, J. A., N-hydroxyethyl-2-pyridone and some of its derivatives, A., 720.
- Gautrelet, J., reduction in the toxicity of alkaloids by hexamethylenetetramine, A., 1198.
- Gautsch, H. See Plücker, W.
- Gauzit, J., determination of atmospheric ozone by visual photometry, A., 45, 927.
- Gavin, G. See McHenry, E. W.
- Gavrilenko, E., determination of total sulphur in fuels by igniting in a calorimetric bomb, B., 849.
- Gavrilov, A., unsaturated nitriles;  $\Delta^2$ -do-deconitrile, A., 1281.
- Gawthrop, D. B., propagation tests and photography of the disturbance sent out by the explosion of commercial electric detonators, B., 174.
- Gay, L., and Soulié, J., ebulliometer for determining dew point b.p. of mixtures of volatile liquids, A., 480.
- Gay, P. J., determination of mol. wt. of linsed oil and its polymerides, B., 927.
- Gayer, F. H., catalytic polymerisation of propylene, B., 997.
- Gayet, R., and Guillaumie, M., effect of electrical stimulation of the vagus on secretion of insulin, A., 1085. Exciting action of the vagus on the secretion of insulin studied by anastomosis of pancreatic and jugular veins and by similar methods, A., 1209.
- See also Aubel, Eugene.
- Gayler, (Miss) M. L. V., alloys of iron. XI. Constitution of iron-manganese alloys, A., 1008.
- Gaywala, P. M. See Gokhale, V. G.
- Gazzi, V., differing spectrographic sensitiveness of an element when isolated and when mixed with other elements, A., 581. Reference spectrum for spectrography in the visible spectrum, A., 586.
- Geake, A., analysis of sized cotton: determination of zinc and magnesium, and qualitative tests, B., 55.
- See also Clibbens, D. A.
- Geaneas, P., removal of carbon [deposits from internal-combustion engines], (P.), B., 902.
- Gebauer, R. See Eckardt, A., and Trauben-berg, H. R. von.
- Gebauer-Fülneegg, E. von. See Lewis, Burns.
- Gebhardt, F., and Klein, J., effect of injected liver-extracts on blood-cholesterol and -cholesteryl esters, A., 1069. Acetylcholine and gastric juice, A., 1319.
- Köhler, Rudolph, and Körner, E., colloid chemistry of Trommer's sugar test, A., 738.
- Gebhardt, W., explosibility, spontaneous inflammability, and briquetting power of constituents of brown-coal dust, B., 450.
- Gedda, K. O., indirect determination of vitamin-C state of students in Upsala in autumn and spring by measurement of strength of skin capillaries, A., 100.
- Geddes, R. L. See Thiele, E. W.
- Geddes, W. F., and Larmour, R. K., bromate baking tests, B., 281.
- See also Larmour, R. K.
- Gedeon, T., occurrence of water containing alum, A., 1267. Accessory constituents of Hungarian bauxite, A., 1268.
- Gedroiz, K. K., soil-absorbing complex, plant fertilisers and soil improvement, B., 322. Adsorptive complex of soil and its importance in agriculture, B., 338. Soil absorbing complex as colloidal fraction of the soil and its relation to plants, B., 932.
- Gee, G. N. See Trotman, S. R.
- Gee, H., calcium equilibrium in sea-water. I. and IV., A., 251.
- Greenberg, D. M., and Moberg, E. G., calcium equilibrium in sea-water. II. Sealed bottles shaken at constant temperature, A., 251.
- and Moberg, E. G., calcium equilibrium in sea-water. III. Empirical variation of gas phase, A., 251.
- Gee, W. P., and Texas Co., filtration, (P.), B., 288.
- Geer, H. A. See Davidson, A. W.
- Geer, W. C., and Goodrich Co., B. F., electrical [resistance] element, (P.), B., 796.
- Geering, R. See Ruzicka, L.
- Geese, W., practical experience with Spengler pre-defecation, B., 886.
- Geest, H., dependence of dispersion of conductivity on temperature, A., 1015.
- Geffcken, W., Beckmann, C., and Kruis, A., molecular refraction in dilute solutions. I. Differential buoyancy method for precision measurements of density, A., 587.
- See also Kruis, A.
- Gehlen, H., reactions and properties of nitric oxide and its compounds. III. Reaction between nitric oxide and alkali nitrosodisulphonates, A., 240.
- Gehlen, W., efficiency of intravenously injected medicaments as a function of time, A., 1078.
- Gehm, G. See Krüger, F.
- Gehreckens, K. A., and Müller, Eugen, stereoisomerism of azoxybenzenes. IV. Dipole moments and configuration, A., 388.
- Gehring, A., importance of potash manuring in vegetable culture, B., 360. Phosphate requirement of Brunswick soils, based on results of Neubauer analyses, B., 562. Nitrogen manuring in vegetable culture, B., 884.
- Creuzburg, U., Pommer, B., Stockhausen, H. von, and Wehrmann, O., effect of magnesium on crop yields, B., 599.

- Gehrke, A. See Schmalfuss, Hans.
- Gehrke, M. See Schoeller, W.
- Gehrts, A., and Vatter, H., fraction of the current traversing a low-potential arc carried by positive ions, A., 109.
- Geib, K. H., and Harteck, P., additive reactions of hydrogen and oxygen atoms at low temperatures, A., 1257.
- Geiger, C. F. See Forse, E. B.
- Geiger, E., increase in blood-lactic acid due to under-cooling, A., 634.
- Geigy Akt.-Ges., J. R., black trisazo-dyes, (P.), B., 185. [Water-soluble, resinous] condensation products of high mol. wt., (P.), B., 399. Removal of iron from solutions of chromium salts, (P.), B., 626. Yellow varnishes, (P.), B., 677. Primary disazo-[acid wool] dyes, (P.), B., 780. Monoazo-[acid] dyes, (P.), B., 909. Tanning of animal hides, (P.), B., 932. Removal of iron from acid solutions of aluminium salts, (P.), B., 1009.
- and Biedermann, R., preparation of hides or skins for tanning, (P.), B., 1071.
- See also under Geigy Soc. Anon., J. R.
- Geigy Société Anonyme, J. R., conversion products of azo-dyes, (P.), B., 185.
- See also Richard, B.
- Geiler, J., possibility of making brown coal available for plant nutrition, B., 201.
- Geiling, E. M. K. See Grollman, A.
- Geilmann, W., and Hurd, L. C., analytical chemistry of rhenium. VIII. Volumetric determination of rhenium oxides. IX. Determination of hydrochlororhenic acid in presence of per-rhenic acid. X. Determination of rhenium as dioxide, A., 479, 1025, 1263.
- and Wrigge, F. W., determination of indium and gallium with 8-hydroxyquinoline, A., 43. Selenides. II. Formation of copper selenides by reduction of aqueous selenious acid with cuprous oxide [or copper]. III. Action of copper selenides on solutions of noble metal salts, A., 475. Analysis of naturally occurring selenides. IV. Separation of selenium from metals; loss of selenium during analysis, A., 477. Determination of indium and gallium with 8-hydroxyquinoline, A., 584. Rhenium sesquioxide,  $\text{Re}_2\text{O}_3$ , A., 1259. Reactions of rhenium chlorides, A., 1259.
- Wrigge, F. W., and Biltz, W., rhenium trichloride, A., 1130. Rhenium pentachloride, A., 1259.
- Geiman, Q. M. See Wenrich, D. H.
- Geisinger, H. H. See Corbet, R. E.
- Geissendörfer, H. See Strack, E.
- Geldbach, A. See Korpinn, J.
- Geldor, R. W., magnesian cement, (P.), B., 628.
- Gelfan, S., and Bell, I. R., anaesthetic action of divinyl oxide on humans, A., 310.
- Gelhaar, J., calcium carbide and calcium cyanamide, B., 668.
- Geller, J., low-temperature distillation and coking, (P.), B., 534.
- Geller, K. H. See Schmitz-Dumont, O.
- Geller, L. W., and Amer. Chiclé Co., chewing-gum base, (P.), B., 171.
- and Will & Baumer Candle Co., moulding of beeswax candles, (P.), B., 514.
- Geller, R. F., and Evans, D. N., ceramic bodies of low absorption maturing at temperatures below 1000°, B., 19.
- Evans, D. N., and Creamer, A. S., effects of particle size of a potter's "flint" and a felspar in whiteware, B., 1056.
- Gellhorn, B., Hofmeister series in muscle [irritation], A., 91. Hofmeister series [of anions] in heart-muscle, A., 861.
- and Northup, D., influence of hormones on absorption. II. Internal secretions and permeability, A., 1335.
- Gelpi, A. J. See Lush, R. H.
- Geltzer, F., influence of method of irrigation on nutrient status of soil and yield of cotton, B., 563.
- Gemant, A., and Akahira, T., effect of mechanical stress on disruptive strength of dielectrics, A., 893.
- Gemmill, C. L., and Ribeiro, B. A., phosphates in blood after strenuous muscular exercise, A., 530.
- See also Meyerhof, O.
- Gen, M. I., Zelmanov, I. L., and Schalnikov, A. I., preparation of colloidal solutions of the alkali metals, A., 673.
- Genard, J., molecular fluorescence of antimony, A., 200. Fluorescence of diatomic molecules of antimony, A., 1095.
- General Aniline Works, Inc., Leopold, R., and Paquin, M., urea [carbamide] derivatives of  $\alpha$ -butylene glycol, (P.), B., 217.
- and Münz, F., rendering harmless the precipitates formed by hard water, (P.), B., 1038.
- Neelmeier, W., Rimele, E., and Glietenberg, E., [preparation of] monoacylated 2:5-diaminohydroquinone [-quinol] ethers, (P.), B., 1000.
- Reddelien, G., Lange, Hans, Fischesser, A., and Freund, H., discharging preparation, (P.), B., 1054.
- Gen. Atlas Carbon Co. See Beaver, D. J.
- Burke, S. P., and Keller, T. P.
- Gen. Chemical Co., and Allen, W. S., apparatus for manufacture of sulphuric acid, (P.), B., 385.
- and Clark, C. B., anhydrous aluminium chloride, (P.), B., 60. Conducting exothermic gaseous reactions, (P.), B., 736.
- and Gillett, L., drying tower [for gases], (P.), B., 450.
- and Henninger, A. H., determination of sulphur dioxide, hydrogen sulphide, or both in gas mixtures, (P.), B., 18.
- and Isenberger, H. O. C., catalytic apparatus [for production of sulphur trioxide], (P.), B., 267.
- and Joseph, H., catalyst [for gas-phase reactions], (P.), B., 828.
- and Levermore, C. L., alkali phosphate, (P.), B., 385.
- and Merriam, H. F., treatment of waste [obnoxious] gases, (P.), B., 450.
- and Mullen, E. J., drying of gases, (P.), B., 4.
- Gen.-Direktion der Österreichische Tabak Régie, preparing tobacco substantially free from nicotine, (P.), B., 572.
- Gen. Electric Co., Ltd., relatively bullet-proof sheet materials or moulded compositions, (P.), B., 880.
- and Adams, L. V., [alkyd] resin composition and its preparation, (P.), B., 78. [Modified glyptal] resinous condensation products, (P.), B., 756.
- and Agte, K., electric lamp and illuminating body used therein, (P.), B., 154.
- Gen. Electric Co., Ltd., and Allen, A. L., papersuitablefor capacitors, (P.), B., 58.
- Bareiss, M., and Wiegand, E., introduction of mercury into [electric] discharge tubes, (P.), B., 273.
- and Boyer, S., marking of quartz [for thermometers, etc.], (P.), B., 466.
- Brophy, G. R., and Scorzoni, G., refractory lining for melting pots, (P.), B., 507.
- and Charlton, E. E., [electric] gaseous-conduction device, (P.), B., 26.
- Childs, A. T., and Weldon, J. J., vertical tube-furnace, (P.), B., 129.
- and Clark, F. M., treatment of aluminium, (P.), B., 112. Drying treatment, (P.), B., 368.
- and Coulson, B. P., jun., mercury boilers, (P.), B., 448.
- and Dahl, O., copper[-beryllium-chromium] alloys, (P.), B., 111.
- and Dantsizen, C., refrigerant, (P.), B., 131.
- and Dawson, E. S., jun., [oil-modified glyptal] resinous compositions, (P.), B., 721.
- and Force, J., incandescence electric lamp, (P.), B., 795.
- Fuwa, K., and Shiraiishi, Y., [frosting of] electric lamp bulbs, (P.), B., 148.
- Herzog, E., and Watson, H. L., [tungsten-carbon] thermocouple, (P.), B., 70.
- Holtnagel, H. P., and Winckler, G. A. F., rectification of alternating currents, (P.), B., 512.
- Ipsen, C. L., and Otis, A. N., [cooling of] furnace [charges], (P.), B., 368.
- Jones, B. W., and Carpenter, C. F., electrical contact, (P.), B., 73.
- and Jones, N. B., protective apparatus [for metal-melting] furnaces, (P.), B., 833.
- and Kelley, F. C., annealing process, (P.), B., 971.
- and Kienle, R. H., synthetic resin, (P.), B., 640. [Modified glyptal] resinous condensation products, (P.), B., 756.
- and Koller, L. R., temperature-controlling and -measuring apparatus, (P.), B., 433.
- and Krauss, W., copper iodide rectifier, (P.), B., 752.
- and McFarland, J. L., furnace, (P.), B., 129.
- and Marcellus, F. R., temperature measurement, (P.), B., 896.
- and Miller, P. S., manganese resinate, (P.), B., 756.
- and Möller, R., liquid purification for Kerr cells, (P.), B., 396.
- and Nerad, A. J., apparatus for heat removal by mercury, (P.), B., 368.
- and Nickle, C. A., resistor [having negative temperature coefficient], (P.), B., 27.
- and Nordlander, B. W., preparation of stable [active] selenium sulphide, (P.), B., 427.
- and Patent-Treuhand Ges. für elektr. Glühlampen m.b.H., electric-discharge tubes, (P.), B., 72. Luminous electric-discharge tubes, (P.), B., 73. Filaments and electrodes for electric lamps and discharge devices, (P.), B., 397.
- and Pfalzgraff, R. M., laminated core structure, (P.), B., 68.
- and Randall, J. T., thermionic electrodes for electric-discharge tubes, (P.), B., 113.

- Gen. Electric Co., Ltd., and Sampson, J. M., foundry core and binder therefor, (P.), B., 395.
- and Skaupy, F., [glow-]discharge device electrode, (P.), B., 113.
- and Stone, C. W., colour analyser, (P.), B., 898.
- Villiers, E. G., and Winch, G. T., portable photo-electric photometers, (P.), B., 434.
- and Wiegand, B., oxide cathodes, (P.), B., 716.
- Gen. Electric Vapor Lamp Co. See Foulke, T. E.
- Gen. Foods Corporation. See Douglas, R., and Loesch, H. G.
- Gen. Mills, Inc. See Bailey, C. H.
- Gen. Mining & Finance Corporation, Ltd., ore-dressing jigs, (P.), B., 154.
- Gen. Motors Corporation. See Huffman, W. D., and Phillips, W. M.
- Gen. Motors Research Corporation. See Boegehold, A. L., Mougey, H. C., Williams, H. M., and Wirshing, R. J.
- Gen. Packing Corporation. See Northcutt, R. T.
- Gen. Plastics, Inc. See Dent, H. M.
- Gen. Plate Co., thermostats, (P.), B., 208.
- Gen. Reduction Corporation. See Smith, William Henry.
- Gen. Refractories Co. See Heuer, R. P.
- Gen. Rubber Co., and McGavack, J., crude rubber, (P.), B., 32.
- Gen. Salt Co. See Girvin, C. W., and Randolph, F. K.
- Gen. Steel Castings Corporation. See Roepke, W. G.
- Gen. Zeolite Co. See Adelson, S. L., Green, W. H., Hodges, A. B., Hughes, W. J., and Kean, R. H.
- Geness, S. G., and Epstein, S. P., biological action of intermediate products of tissue decomposition. I. Influence of pancreatolysate on blood-sugar, A., 1197.
- Genevois, L. See Brisou, J.
- Gengou, O., action of *Staphylococcus* on oxalated plasma and on fibrinogen, A., 983.
- Gensecke, M., continuous or intermittent vacuum distillation of mineral oils, (P.), B., 100. [Steam-]distillation of mineral oils, (P.), B., 214.
- Gensecke, W. See Metallges. A.-G.
- Genter, A. L., and Bartlett Hayward Co., gas-washing method and apparatus, (P.), B., 4. Recovery of metallic wastes from gas washers for metallurgical furnaces [iron blast furnaces], (P.), B., 234.
- Gentil, E., control of heat conditions in glass furnaces, (P.), B., 867.
- Gentile, F. See Scagliarini, G.
- Gentner, W., absorption of very penetrating  $\gamma$ -rays, A., 995.
- Gentsch. See Guthmann.
- Genuit, J. W., and Stoddy Co., sintered hard-metal alloy, (P.), B., 925.
- Genvarski, A. N. See Vanyukov, F. A.
- Geoffroy, R., sugar content of wheat and flour, B., 247.
- Georg, A., [attempted] synthesis of the sucrose of Pictet and Vogel, A., 260. and Monsanto Chem. Works, benzoic acid, metal benzoates, and alkyl benzoates, (P.), B., 1047.
- George, H. See Bayle, E.
- George, H. S., and Electro Metallurg. Co., ductile iron-chromium alloys having a cold-rolled finish, (P.), B., 432. Removing oxide coatings from metals, (P.), B., 432. Finished iron-chromium alloy article and its manufacture, (P.), B., 432. Cleaning metal articles, (P.), B., 432.
- Georges, L. See Lasseur, P.
- Georges, L. W. See Deulofeu, V.
- Georgeson, E. H. M. See Coward, H. F.
- Georgi, C. D. V., centrifugal extraction of palm oil at Serdang, B., 27. Comparison of press and centrifugal methods for treatment of oil-palm fruit, B., 397. Oil content of Malayan groundnuts, B., 637. System of control for oil-palm factories, B., 1065.
- and Teik, G. L., rotenone content of Malayan tuba [Derris] root, B., 37. Bleaching of palm oil, B., 275. Valuation of tuba [Derris] root, B., 1035.
- Georgi, K., anodic behaviour of cobalt, A., 468. Anodic behaviour of iron, A., 1016. Anodic behaviour of nickel, III., A., 1127.
- Georgiev, A. See Aerovox Wireless Corp.
- Georgievsky, S. See Andreev, S.
- Geraghty, G. B., Underhill, F. A., Orten, J. M., and Lewis, R. C., metal cages and nutritional anaemia, A., 301.
- Gerard, M. E. See Mouchel & Partners, Ltd., L. G.
- Gerard, R. W., and Schachter, R. J., glucose utilisation by brain, A., 307. See also Chang, T. H., and Tang, P.
- Gerasimov, N., viscosity of gases and other problems on the kinetic theory, A., 668.
- Gerb, L. See Liebknecht, O., and Rosenheim, A.
- Gercke, A. See Hückel, W.
- Gerdanovičs, V. von, multi-colour photographic images, (P.), B., 940.
- Gerdel, R. W., determination of the inorganic nitrogen in the maize plant by the expressed sap method, A., 106. See also Morris, V. H.
- Gerdien, H., aluminium oxide as a highly-refractory material, B., 190. See also Westinghouse Electric & Manufg. Co.
- Gerding, H. See Smits, A.
- Geréb, S., and Laszlo, D., blood-phosphate compounds in health and disease, A., 174.
- Geret, H., surface forces of pigments, B., 29.
- Gerhard, S. L., infra-red absorption spectrum and molecular structure of ozone, A., 208.
- and Dennison, D. M., envelopes of infra-red absorption bands, A., 337.
- Gerhardt, G., treatment of [fermented] beverages [beer or wine], (P.), B., 247.
- Gerhart, H. L. See Suter, C. M.
- Gericke, S., mobility of phosphoric acid in soil, B., 201.
- Gericke, W. F., variation of protein quality in wheat grown in aqueous culture media, B., 843.
- Gerisch, E. See Orthner, L.
- Gerischer, W. See Smythe, C. V.
- Gerke, R. H., and Naugatuck Chem. Co., synthetic rubber polymerides, (P.), B., 158. See also Gibbons, W. A.
- Gerlach, Walther, change of electrical resistance on magnetisation, A., 116. Spectroanalytical determination of traces, A., 1022. Magnetic susceptibility of argon; measurements by A. Roth, A., 1233. Development, and scientific and technical uses, of X-ray tubes, A., 1264.
- and Riedl, E., spectro-analytical and electrical investigation of purest platinum, A., 800.
- Gerlach, Walther, and Ruthardt, K., spectrum analysis. XI. Method of quantitative and qualitative spectrum analysis, A., 134.
- and Gerlach, Werner, detection of elements in tissues. I. Lead, A., 83.
- Gerlach, Werner. See Gerlach, Walther.
- Germ Lubricants, Ltd. See Southcombe, J. E.
- German, H. M., and Universal Steel Co., hack-saw blade [of chromium-tungsten steel], (P.), B., 311.
- Germann, F. E. E., solid carbon dioxide from flue gas by application of the Joule-Thomson effect, B., 305.
- and Knight, O. S., preparation of triethanolamine ( $\beta\beta\beta'$ -trihydroxytriethylamine), A., 1280.
- Germann, L. A. See Gault, H.
- Germann, W., and Strasser, A., rust-proof iron or steel, (P.), B., 712. See also Strasser, A.
- Germeau, J., physico-chemical reactions in the basic Martin furnace during the melting period, B., 1011.
- Germer, E., cleaning and degassing electric-discharge tubes, (P.), B., 72.
- Germer, L. H., diffraction of electrons by metal surfaces, A., 657. See also Davisson, C. J.
- Germet, D. V. See Adadurov, I. E.
- Germond, O., centrifugal gold and mineral separator, (P.), B., 634.
- Germuth, F. G., accelerated production of specific urinary pigments by drug administration. II. Effect of trial on urobilin and urobilinogen formation, A., 310.
- Gernet, D. V. See Adadurov, I. E.
- Gerngross, O., and Herfeld, H., acid flocculation of vegetable tannin extracts, B., 159. Utility of the quinhydrone electrode in determinations of  $p_H$  in vegetable tannin extracts, B., 159. Detection of sulphite-cellulose waste liquor [in vegetable tanning extracts] by the [Procter-Hirst] aniline-hydrochloric acid, cinchonine, and fluorescence tests, B., 159. Effect of tannin, acidity, and temperature on the cinchonine test for detection of sulphite-cellulose waste liquor [in vegetable tanning extracts], B., 319.
- and Hoffmann, K. M., [apparatus for studying] changes of the cell membrane of wood during sulphite-cellulose cooking, B., 342.
- Hoffmann, K. M., and Klein, Georg, glass autoclave to facilitate observation of reactions at high temperature and pressure, A., 366.
- Voss, K., and Herfeld, H., highly-sensitive specific colour reaction of tyrosine on *p*-substituted phenols; tyrosine content of various proteins, particularly of collagen and gelatin, A., 407.
- See also Herfeld, H., and Herrmann, K.
- Gernhardt, A., effect of pilocarpine and "Neu-Cesol" on the amylase content of human saliva, A., 1185.
- Gerő, A., structure of cellulose, A., 1279.
- Geronazzo, M., emulsive oils and complex fats used in tanning. IV. and V., B., 598.
- Gerr, V., Pipik, O., and Mezhebovskaia, E., isopropyl alcohol from refinery gases fractionated with activated charcoal, B., 99.
- Gerretsen, F. C., biological production of butyl alcohol and acetone, (P.), B., 281.

- Gerritsen, D. J. See De Nooij, J. C.
- Gerritsen, S. C. L., and Kauffman, M., formation of volatile fatty acids on keeping rye and wheat fats exposed to air, B., 113.
- Gershenfeld, L., and Miller, R. E., bactericidal efficiency of menthol and camphor, A., 1334.
- Gerschmann, R., and Marenzi, A. D., variations in the plasma- and blood-potassium during alimentation and fasting, A., 1075.
- See also Marenzi, A. D.
- Gerschzon, A. I., viscosity of cuprammonium solutions of cellulose, B., 958.
- Gersdorff, C. E. F. See Jones, D. B.
- Gersdorff, W. A., toxicity of rotenone hydrochloride, acetyl-rotenone, and rotenolone using the goldfish as the test animal, A., 531. Comparison of toxicity of nicotine and anabasine, A., 978.
- See also Jones, H. A.
- Gershenfeld, L., and Miller, R. E., bactericidal efficiency of 2% phenol ointments; ointment bases for bactericidal bases, B., 524.
- Pressman, R., and Wood, H. C., jun., bactericidal efficiency and toxicity of creosote and its components, B., 524.
- Gershon, V. P. See Lloyd, E. A.
- Gerssen, J. N., automatic determination of water-soluble matter in [vegetable-tanned] sole leather, B., 598. Determination and calculation of the water-penetrability of sole leather, B., 724.
- Gerstenberg, A., apparatus for kneading of margarine and other edible fatty substances, (P.), B., 204. Cooling drums for cooling of liquid and molten substances, (P.), B., 992.
- Gerstenberger, H. J., and Horesch, A. J., treatment of rachitic infants with milk produced by cows fed with irradiated ergosterol, A., 181.
- Gerstley, J. R., infant nutrition. VII. Lactic acid milk, A., 975.
- Gerstner, F. See Stock, A.
- Gerthsen, C., excitation of characteristic X-rays by canal-ray collision, A., 760.
- Gertler, S. I. See Lothrop, R. E.
- Gerum, J., loss by fermentation in manufacture of bread, B., 39.
- Gervay, V. See Schulek, E.
- Gerver, A. J. J. See Michels, A.
- Gesell, E. See Pongratz, A.
- Gesellschaft für Drucktransformatoren (Koenemann-Transformatoren) G.m.b.H., heat-transfer media, (P.), B., 992.
- Ges. für Kohlentechnik m.b.H., hydrocyanic acid [from thiocyanates], (P.), B., 1008. Sodium cyanide, (P.), B., 1008.
- Ges. für Linde's Eismaschinen Akt.-Ges., extraction of those constituents of air [e.g., krypton and xenon] which have a higher b.p. than oxygen, (P.), B., 428.
- Ges. für Teerstrassenbau m.b.H., bitumen emulsions, (P.), B., 377.
- Ges. für Teerverwertung m.b.H., Kraft, F., and Muller, S., [preparation of] solid pure naphthalene and similar solid pure substances from the molten substances, (P.), B., 54.
- Gessner, F., nutrient intake of submerged plants, A., 874.
- Gessner, H. See Wiegner, G.
- Gessner, O., Klenke, J., and Wurbs, F. R., local anaesthetics, pantocaine and laro-caine, as compared with novocaine, A., 91.
- Getman, F. H., influence of gases on normal potential of zinc electrode, A., 29.
- Getreuer, V. See Lieben, F.
- Getz, C. A. See Prucha, M. J.
- Gewehr, R. See Fischer, Werner.
- Gewerkschaft Gevenich, Englert, O., and Becker, Wilhelm, blanc fixe, (P.), B., 879.
- Gewerkschaft M. Stinnes, desulphurising of coal-distillation gases, (P.), B., 951.
- Gewerkschaft Victor, ammonium sulphate-nitrate, (P.), B., 914.
- Gex, (Mlle.) M. See Viès, F.
- Geyer, A., kilns for burning bricks, etc., (P.), B., 387.
- Geyer, E., and Rotsch, A., mercurimetric determination of chlorides in milk, B., 329.
- Gfundner, E. See Rokita, W.
- Ghatuk, N., composition of fruit of *Tribulus terrestris*, Linn., A., 651. Composition of seeds of *Thevetia nerifolia*, Juss. I., A., 651. Colour and chemical constitution; effect of auxochromic groups on phthalophenone [lactone of triphenylcarbinol-*o*-carboxylic acid], A., 950. Dyes derived from phenanthraquinone; phenanthraphenanthrazines, B., 541.
- and Giri, K. V., peroxidase from fruit of *Tribulus terrestris*, Linn., A., 634.
- and Kaul, R., chemical examination of seeds of *Abrus precatorius*, L. I., A., 104.
- and Pendse, G. P., chemistry of roots of *Thevetia nerifolia*, Juss., A., 877.
- Gheorghiu, C. V., action of phenylcarbamide on aromatic amino-oximes, A., 715. Ionic dissociation of 2-thion-1:2:3:4-tetrahydroquinazolines, A., 1171.
- Gheorghiu, G., cinchomeron[hydrazide], A., 615. Pigment of *Protoleipsis tessellata*, A., 736.
- Gheorghiu, T. D., use of gas-filled photoelectric cells in photometric measurements, A., 1135.
- Gherschovici, I. See Ballif, L.
- Ghigi, E., Adamkiewicz reaction with *p*-dimethylaminobenzaldehyde (Rohde reaction), A., 1057.
- See also Charrier, G.
- Ghiron, D. See Levi, G. R.
- Ghose, A. C., cholesterol content of blood in Indians and its significance in jaundice, A., 739.
- Ghose, P. K. See Dutta, R. J.
- Ghose, T. P., Krishna, S., Narang, K. S., and Rây, J. N., vasicine, A., 77.
- See also Krishna, S.
- Ghosez, J., nitriles and amides of cinnamic acid, A., 62.
- Ghosh, C., vanadium oxide bands, A., 1102.
- Ghosh, D. N., flocculation values for arsenic sulphide sol, A., 225.
- Ghosh, J., gravitational field of an electron, A., 993.
- Ghosh, J. C., and Purkayastha, R. M., dependence of quantum efficiency on frequency of effective monochromatic radiation in photochemical reactions, A., 792.
- Ghosh, N. N. See Rây, (Sir) P. C.
- Ghosh, P. N., and Sen-Gupta, A. K., ultra-violet bands of oxide of phosphorus, A., 660.
- Ghosh, R. See Rây, (Sir) P. C.
- Ghosh, Satyeshwar, hysteresis in the sol-gel transformation of agar sols, A., 225.
- and Bhattacharya, A. K., "after effect" and "induction period" in the reversible photochemical reduction of tungstic acid sol, A., 35.
- Ghosh, Satyeshwar, and Dhar, N. R., sensitisation of stannic hydroxide sol by silicic acid sol, A., 225.
- and Prakash, S., formation of spiral rings in drying gels, A., 674.
- See also Banerjee, S. N.
- Ghosh, Sudhamoy, and Dutt, A., vitamin-B content of rice, A., 871.
- Ghurauskaja, A., amount and properties of fat-globules in Siberian cow's milk at different periods of lactation, A., 1067.
- Giacalone, A., condensation of aldehydes with hydrazones, A., 402. Colouring matters derived from triphenyl-methane. II., A., 504.
- Giammarco, G. See Toniolo, C.
- Giammona, A., determination of chlorine and fluorine in Etna lava, A., 589.
- Giana, M., micro-determination of phosphorus with the Pulfrich photometer, A., 1261.
- Giard, E. A. See Igranic Electric Co.
- Giauque, W. F., Blue, R. W., and Overstreet, R., entropies of methane and ammonia, A., 453.
- Gibbard, J., treatment of water by forms of silver, B., 942.
- Gibbons, J. J., jun. See Bartlett, J. H., jun.
- Gibbons, W. A., Gerke, R. H., and Tingey, H. C., T-50 test for state of cure [of rubber], (P.), B., 757.
- Hazell, E., and Revere Rubber Co., hard rubber dust, (P.), B., 80.
- See also Ostromisslenski, J., and Revere Rubber Co.
- Gibbons, W. E. See Gibbons Bros., Ltd.
- Gibbons Bros., Ltd., and Bridgford, T. E., muffle furnaces, (P.), B., 96, 175.
- and Gibbons, W. E., tunnel kilns, (P.), B., 829.
- Gibbs, C. F., Littmann, E. R., and Marvel, C. S., quaternary ammonium salts from dimethylhalogenoalkylamines. II. Polymerisation of dimethyl-*γ*-halogenopropylamines, A., 381.
- Gibbs, R. C., and Kruger, P. G., nuclear spin of aluminium, A., 199. Existence of barium isotopes 136 and 137, A., 333.
- See also Barnes, L. L., and Kruger, P. G.
- Gibbs, W. E., dusts, smokes, mists, and fogs, A., 123. Testing of an evaporator, B., 127.
- Gibertson, A., colorimetric determination of hydrogen sulphide, sulphides, and thio-sulphates, A., 1260.
- Gibson, C. S., organic compounds of gold, A., 267. Plastics: their use in dentistry, B., 755.
- and Holt, S., hydrates of calcium sulphate, A., 793.
- and Johnson, R. N., setting of plaster of Paris. IV. Sodium and potassium borates and their effects on the setting, B., 107.
- and Levin, B., derivatives of benzaldehyde-*p*-arsinic acid, A., 618. Optically active arsenic acid possessing molecular dissymmetry; resolution of *dl*-spirobis-3:5-dioxan-4:4'-di(phenyl-*p*-arsinic acid), A., 1177.
- Gibson, D. T., methylene disulphones, A., 806.
- See also Cowie, D. W.
- Gibson, F. H. See Selvig, W. A.
- Gibson, F. O. See Burke, V.

- Gibson, G. E., and Bayliss, N. S., variation with temperature of continuous absorption spectrum of diatomic molecules. I. Experimental; absorption spectrum of chlorine, A., 991. Continuous absorption spectrum of chlorine, A., 1221.
- Rice, O. K., and Bayliss, N. S., variation with temperature of continuous absorption spectrum of diatomic molecules. II. Theoretical, A., 991.
- Gibson, J., hypochlorites as disinfectants, B., 686.
- Gibson, K. E. See Lane, M. C.
- Gibson, O. H., brake-lining composition, (P.), B., 609.
- Gibson, R. B. See Andersch, M., Clark, B. B., Paul, W. D., and Turner, M. E.
- Gibson, Ralph E., production of high-temperature smokeless fuel in horizontal retorts for domestic purposes, B., 771.
- Gibson, Ralph Edward, and Adams, L. H., changes of chemical potential of concentrated solutions of salts, A., 904.
- and Markley, K. S., polymorphism of the substituted thiazole, 3-phenyl-2:4-thiazolidione, A., 839.
- See also Adams, L. H.
- Gibson, W. A., and Bradley Pulverizer Co., air separator, (P.), B., 609.
- Gieckhorn, J., occurrence of calcium tartrate, A., 105.
- Gideon, (Miss) E. See Henderson, J. E.
- Giebenhain, H. See Magnus, A.
- Giedroyé, W. See Przylecki, S. J. von.
- Giehmann, H. See Biesalski, E.
- Gierhake, E. See Wehefritz, E.
- Giertz-Hedström, S. See Stålhane, O., and Werner, D. R. E.
- Gies, J. R., and Internat. Precipitation Co., collecting electrode for electrical precipitation apparatus, (P.), B., 154.
- Giese, E. H. See Mortimer, F. S.
- Giese, H. See Schwarz, R.
- Giesecke, F. See Blanck, E.
- Giesen, F. See Dehlinger, U.
- Giesmann, W., motor fuels, B., 136.
- Giffen, H. J. van, micro-determination of iodine in thyroid gland and other organic compounds, A., 1094. Determination of theobromine in pharmaceutical products by Boie's method, B., 91. Examination of [medicinal] tablets [Nos. 17—21 of the Dutch Pharmacopœia], B., 171. Kjeldahl determination of nitrogen by the suggested F.I.P. method, B., 1036.
- Gigon, A., insulin and diabetics, A., 1335.
- Gilbert, J. M., product for deleting or obliterating inscriptions or drawings in black or red ink from tracing cloth, (P.), B., 356.
- Gilbart, K. C. See Stansfield, E.
- Gilbert, B. E., and Pember, F. R., influence of rye and oat straws on growth and yield of vegetables, B., 323.
- Gilbert, C., energy levels of the hydrogen molecular ion, A., 1223.
- Gilbert, E. C., and Cobb, A., apparatus for routine use of glass electrode, A., 248.
- and Huffman, E. H., hydrazine: solubility of hydrazinium salts in mixed solvents, A., 19.
- Gilbert, H. N., Zimmerli, W. F., and Hansley, V. L., sodium, B., 710.
- Gilbert, J. W. See Du Pont de Nemours & Co., B. I.
- Gilbert, R., and Clark, M. E., glycerol as a preservative for milk to be examined for hæmolytic streptococci, A., 969.
- Gilbert, W., heat transmission in rotary kilns. I.—V., B., 95, 367, 847, 1039. See also Allen & Co., Ltd., E.
- Gilbertson, L. I., preparation of telluric acid, A., 580.
- Gilchrist, B. W. See McCullough, J. F. K.
- Gilchrist, M. L., influence of acidosis on carbohydrate metabolism, A., 179.
- See also Fleming, G. B.
- Gilchrist & Co. See Graham, W. C.
- Gildea, E. P. See Himwich, H. E., and Man, E. B.
- Giles, J. K., Taffel and Revis method for determination of rancidity of oils and fats, B., 1016.
- Giles, W. R. See Pasternack, R.
- Gillilan, E. S., and Póányi, M., micro-pyknometer for determination of displacements of isotopic ratio in water, A., 1136.
- See also Bent, H. E.
- Gill, A. See Hauser, E. A.
- Gill, A. H., pine-nut oil, B., 877.
- Gill, J. H., refractory, (P.), B., 107.
- Gill, S., [coating compositions for] pipeline protection, B., 237.
- McGary, S. U., and Gulf Production Co., protecting an immersed [metal] surface from corrosive action, (P.), B., 195.
- Gillam, A. E., absorption spectra of solutions of iodine bromide, cyanogen iodide, and cyanogen bromide, A., 1226.
- Heilbron, I. M., Morton, R. A., Bishop, G., and Drummond, J. C., variations in quality of butter and the vitamin-A, carotene, and xanthophyll content as influenced by feeding artificially dried grass to stall-fed cattle, A., 848.
- Gille, F. See Guttman, A., and Wendekamm, K.
- Gille, R. See Benhamou, E., and Hilpert, S.
- Gilleo, A. J., and Outrite Fire Extinguisher Corp., fire-extinguishing compound, (P.), B., 848.
- Gillespie, K. A., and Stamford Rubber Supply Co., rubber substitute, (P.), B., 559.
- Gillespie, L. J., and Beattie, J. A., thermodynamic treatment of chemical equilibria in systems composed of real gases. II. Relation for the heat of reaction applied to the ammonia synthesis reaction; energy and entropy constants of ammonia, A., 227.
- and Coe, J. R., jun., heat of expansion of a gas of varying mass, A., 217.
- Gillet, A., and Pirlot, A., disintegration and total solution of coal in anthracene oil, B., 208.
- Gillet, A. E. See De Brouckère, L.
- Gillett, H. W., and Cross, H. C., bearing alloys, (P.), B., 473.
- Gillett, L. See Gen. Chem. Co.
- Gillican-Chiple Co. See Hitch, A. R.
- Gilliland, E. R., and Sherwood, T. K., drying of solids. VI. Diffusion equations for the period of constant drying rate, B., 991.
- See also Cryder, D. S.
- Gillis, J., volatilisation of silica and copper in steam, A., 1245.
- Gillis, R. See Western Electric Co.
- Gilman, A., and Cowgill, G. R., osmotic relations between blood and body-fluids. II. Osmotic relation of blood and gastric juice, A., 1319.
- Gilman, H., and Calloway, N. O., super-aromatic properties of furan. II. Friedel-Crafts reaction, A., 1300.
- and Breuer, F. W., mechanism of reaction of sodium phenyl and lithium phenyl with phenylthiocarbimide, A., 501. Rearrangement reactions of organo-sodium and -lithium compounds, A., 730.
- and Burtner, R. R., stabilising effect of nuclear nitro-groups in furan types; 5-nitro-2-furfuryl chloride and 5-nitro-2-furfuryl methyl ether, A., 280. Orientation in the furan nucleus, A., 398. Orientation in the furan nucleus. VI.  $\beta$ -Substituted furans, A., 954.
- Burtner, R. R., and Smith, Ernest Wesley, orientation in the furan nucleus. III. 5-Methyl-3-furoic acid, A., 280.
- Burtner, R. R., and Vanderwal, R. J., orientation in the furan nucleus. IV. Equivalence of  $\alpha$ -positions and of  $\beta$ -positions in furan, A., 397.
- and Dickey, J. B., conjugated systems in the furan types, A., 280. Friedel-Crafts reaction with phenols and furoyl chloride, A., 719.
- and Ess, P. R. van, preparation of ketones by carbonation of organo-lithium compounds, A., 505.
- Ess, P. R. van, and Burtner, R. R., constitution of carlina oxide, A., 1055.
- Harris, S. A., and Liu, C., organo-magnesium compounds containing solubilising amino-groups, A., 729.
- and Kirby, R. H., relative reactivities of organo-lithium and -magnesium compounds, A., 505.
- and Lousinian, M. B., preparation of furan from furoic acid, A., 397.
- Rowe, L. W., and Dickey, J. B., hypnotic action of mixed ketones containing different types of aromatic nuclei, A., 720.
- and Towne, E. B., super-aromatic properties of furan. I. Scission of lead phenyl fural compounds by hydrogen chloride, A., 71.
- and Vanderwal, R. J., orientation in the furan nucleus. V. 3:4-Dichlorofuroic acid, A., 510.
- Woolley, B. L., and Wright, G. F., reaction between keten and mercurials, A., 831.
- and Wright, G. F., mechanism of the Wurtz-Fittig reaction; direct preparation of an organosodium (potassium) compound from an RX compound, A., 842. Furan mercurials, A., 1062.
- Zoellner, E. A., and Selby, W. M., yields of organo-lithium compounds by the improved procedure, A., 519.
- Gilman, L. I., dyeing of furs with substantive and acid dyes, B., 586.
- Gilmore, J. U., and Milam, J., tartar emetic as a poison for tobacco hornworm moths, B., 484.
- Gilta, G., isomerism of hydroxyphenyl-arsinic acids, A., 618.
- Ginder, P. McL. See New Jersey Zinc Co.
- Gingerich, E. McK., and Aluminum Co. of America, [silicon]-aluminium alloy, (P.), B., 635.
- See also Rowe, H. J.
- Gingold, J. See Bichowsky, M.
- Ginneken, P. J. H. van, and Bruinsma, J. R., evaluation of beets for sugar manufacture, B., 485.



- Ginneken, *P. J. H. van*, De Haan, *K.*, and Bruinsma, *J. R.*, influence of soil carbonic acid on growth of sugar beets, *B.*, 1073.
- Ginnings, *D. C.* See Osborne, *N. S.*
- Ginnings, *P. M.*, Herring, *E.*, and Webb, *B.*, ternary systems water, *tert.*-butyl alcohol, and salts at 25°, *A.*, 456.
- Gino, *C.*, glycerophosphates and their analysis, *B.*, 570.
- Ginsberg, *A. S.*, determination of essential oils in plants, *A.*, 329.
- Selivanov, *B. P.*, and Tzvetkov, *A. I.*, determination of quality of Dinas bricks, *B.*, 62.
- See also Selivanov, *B. P.*
- Ginsberg, *H.*, colorimetry of titanium. II. and III., *A.*, 43, 566. Deposition of copper on aluminium, *B.*, 153.
- Ginsburg, *J. M.*, effect of different soaps on lead arsenate in spray mixtures, *B.*, 440. Compatibility of oil emulsion-cresylic acid sprays with fungicides, *B.*, 934. Laboratory tests with various fumigants on codling-moth larvae, *B.*, 934.
- See also Headlee, *T. J.*
- Ginsburg, *N.* See Inglis, *D. R.*
- Ginsburg, *V. L.* See Fabrikant, *V. A.*
- Ginsburg-Karagichev, *T.*, micro-organisms in oil waters and rocks and their biochemical processes, *A.*, 96.
- Ginsel, *L. A.*, and Ornstein, *L. S.*, optical determination of diffusion constant for sodium, *A.*, 991.
- Ginzburg, *E. G.*, progress in reconstruction of the [oil-] cracking process, *B.*, 453.
- Giolitti, *F.*, nitrided steel, *B.*, 1059.
- Gion, *L.*, photolysis of aqueous ammonia, *A.*, 237.
- Giordani, *M.*, amino-nitrogen of proteins. I. Dissociation constants of asparagine, *A.*, 675. [Production of] glycerol by fermentation, *B.*, 281.
- Girard, *A.*, and Chaudron, *G.*, dissociation of cubic ferric oxide, *A.*, 351. Crystalline systems of microcrystalline ferric oxides, *A.*, 581.
- Girard, *Alexandre*, treatment of sewage and similar liquids, (P.), *B.*, 286.
- Girard, *André*, adoption of a system of international units for the standardisation of folliculin, *A.*, 322. Chemistry of sexual hormones, *A.*, 870.
- Sandulesco, *G.*, Fridenson, *A.*, and Rutgers, *J. J.*, new crystalline sex hormone, *A.*, 98.
- See also Laboratoire Franç. de Chimio-thérapie, and Sandulesco, *G.*
- Girard, *P.*, and Abadie, *P.*, composition of electric moments of polyalcohols: moments of associated dipoles, *A.*, 888. Molecular structure of polyalcohols deduced from their dispersion and absorption for radio frequencies: molecular association, *A.*, 890.
- See also Dufraisse, *C.*
- Girardet, *A.* See Barger, *G.*
- Girardet, *L. F.*, and Lelièvre, *R.*, desulphurisation of cast iron and action of sodium carbonate on molten cast iron, *B.*, 869.
- and Tson-Ren-Kou, destruction of grey cast iron by acids, *B.*, 869.
- Girda, *A.*, crystallisation of second-strike masscuite in molaxers, *B.*, 440.
- Gire, *G.*, thermal decomposition of magnesium silicides, *A.*, 683.
- and Fonquet, *R.*, magnesium, (P.), *B.*, 71.
- Gires, *P.*, dust-separating or washing apparatus for gases, (P.), *B.*, 371.
- Giri, *K. F.*, enzyme action. VI. Heat inactivation of pancreatic amylase, *A.*, 534.
- and Subrahmanyam, *V.*, enzyme action. V. Ageing of amylases in aqueous solution, *A.*, 531.
- See also Ghatak, *N.*
- Girol, *P.*, refining of steels, (P.), *B.*, 873.
- Girolami, *L.*, rhodochrosite in the Emilian Apennines, *A.*, 141.
- Giron, *J. T.*, [fermentation] process of converting substantially uncracked petroleum, shale oil, etc., into an oily menstruum for making rubbery products, (P.), *B.*, 682\*.
- Giršavičius, *J. O.*, glyoxalase. II.  $pH$ -activity curve with phenylglyoxal and the effect of glutathione, *A.*, 635. Properties of glyoxalase and mechanism of antiglyoxalase action, *A.*, 748.
- Girsewald, *C. (Baron) von*, Weidmann, *H.*, Roesner, *G.*, and Amer. Lurgi Corp., trialkali phosphates, (P.), *B.*, 703. Phosphates, (P.), *B.*, 964.
- Girshovich, *N. G.*, and Vidin, *E. K.*, effect of silicon on ductility of malleable iron, *B.*, 21.
- Girvin, *C. W.*, and Gen. Salt Co., recovery of iodine [from adsorbent charcoal], (P.), *B.*, 704.
- and Lawason, *L.*, purifying and drying crude iodine, (P.), *B.*, 267.
- Gisiger, *L.*, determination of nicotine and pyridine [in nicotine soap sprays] in presence of one another, *B.*, 1074.
- Gislon, *A.* See Perret, *A.*
- Gisolf, *J. H.*, and Zeeman, *P.*, nuclear moment of tantalum, *A.*, 1219.
- Gisl, *R.*, soil algae, *B.*, 201. Soil algae and manuring; soil algae and anions, *B.*, 1026.
- Gisvold, *O.* See Rheineck, *A. E.*
- Githens, *T. S.*, amino-alcohols. IX. Biological assay of propadrin and ephedrine, *A.*, 746.
- Gitsels, *J. W. P. L.* See Wibaut, *J. P.*
- Gittel, *E. B. H.* See Godfrey, *G. H.*
- Gittel, *W.*, determination of nitrogen in calcium cyanamide in presence of nitrate, *B.*, 827.
- Gitzen, *W. H.* See Aluminium, Ltd.
- Giua, *M.*, and Guastalla, *G.*, liquids in the system diphenylamine-centralite [*s*-diphenyldiethylcarbamide]. II., *A.*, 1119. Stabilisers and gelatinisers for smokeless powders, *B.*, 333.
- and Raceiu, *G.*, action of aromatic nitro-derivatives on magnesium pyrrol and indolyl compounds, *A.*, 73. Resinification. II. Transformation of chloro- and bromo-acetone, *A.*, 1277.
- and Reggiani, *G.*, action of  $\omega$ -amino-acetophenone and of piperidine on aromatic nitro-compounds, *A.*, 58.
- Givaudan-Delawanna, Inc. See Barbier, *H.*
- Givaudon, *J.*, determination of sulphur in petroleum, *B.*, 180.
- See also Woog, *P.*
- Givens, *J. W.* See Almquist, *H. J.*
- Givens, *M. H.*, and Macey, *I. G.*, chemical composition of the human foetus, *A.*, 1184.
- Gladden, *S. C.*, refractive index of a liquid, *A.*, 556.
- Gladkov, *G. I.* See Shakhov, *G. A.*
- Gladstein, *A. M.*, coal varieties from the Kizelovski basin, *B.*, 450.
- Gladstone, *G. P.* See Fildes, *P.*
- Gladstone, *S. A.*, iron in liver and spleen after destruction of blood and transfusions, *A.*, 176.
- Glangeaud, *L.*, eruptive massif of Cavallo (Constantino), *A.*, 691.
- and Boutiron, chemical and mineralogical changes in a miocene marl at contact with a granite laccolite, *A.*, 928.
- Glanzstoff-Courtaulds Ges.m.b.H., artificial silk, (P.), *B.*, 143. [Wet] treatment of artificial silk spinning cakes, (P.), *B.*, 143. [Uniform] artificial silk [thread], (P.), *B.*, 911.
- Glasebrook, *A. L.* See Rice, *F. O.*
- Glaser, *A.* See Rappaport, *F.*, and Silberstein, *F.*
- Glaser, *D.*, and Haempel, *O.*, detection of male sexual hormone by means of the fish test, *A.*, 643.
- Glaser, *E.*, and Bannet, *I.*, salivary glands and carbohydrate metabolism, *A.*, 1326.
- Glaser, *W.*, theory of the electron microscope, *A.*, 761.
- Glasgow, *A. G.* See Humphreys & Glasgow, Ltd.
- Glass, *H. M.*, Laybourn, *K.*, and Madgin, *W. M.*, two-component salt mixtures of lead nitrate with thallium or silver nitrate, *A.*, 27. Liquidus and solidus studies. II. Ternary system  $KNO_3-NH_4NO_3-Pb(NO_3)_2$ , *A.*, 352.
- and Madgin, *W. M.*, equilibrium constants in terms of activities derived from cryoscopic data: dissociation of pyridine *o*-chlorophenoxide in benzene, *A.*, 350.
- Glass, *J.*, and Groscurth, *G.*, change in isoelectric point of haemoglobin and its relation to acid-base economy, *A.*, 174.
- See also Groscurth, *G.*
- Glaser, *O.* See Crile, *G.*
- Glasspool, *V. M.* See Dewhurst, *M. E. R.*
- Glasstone, *S.*, electrolytic polarisation. X. Ammines of copper, silver, zinc, and cadmium, *A.*, 128.
- and Hiekling, *A.*, electrolytic oxidation. II. Electrolyte oxidation of sodium thiosulphate. III. Formation of dithionate by electrolytic oxidation of potassium sulphite, *A.*, 34, 913. Volumetric determination of dithionates, *A.*, 243.
- and Reynolds, *G. D.*, influence of high-frequency currents on polarised electrodes. II., *A.*, 231.
- and Speakman, *J. C.*, electrodeposition of iron-cobalt alloys. I. and II., *B.*, 24, 231.
- Glaserit-Werke *M. Winkelmann Akt.-Ges.* See Weithöner, *R.*
- Glatfield, *J. W. E.*, and Chittum, *J. W.*,  $C_4$ -saccharic acids. VII. Preparation and resolution of *dl*-threo- $\alpha$ -dihydroxybutyric acid, *A.*, 1143.
- and Klaas, *R.*,  $C_4$ -saccharic acids. VI. Further attempts to prepare  $\beta\beta'$ -dihydroxyisobutyric acid;  $\beta\gamma$ -dihydroxybutyrolactone from glycidol; preparation of the two iodohydrins of glycerol, *A.*, 490.
- Glatzel, *H.*, mineral metabolism in renal disease. II. Excretion of minerals in urine on K- and Na-rich diet, *A.*, 739.
- Glaubit, *M.*, Haehn, *H.*, and Versuchs- & Lehranstalt für Brauerei in Berlin, beer, (P.), *B.*, 1031.
- See also Staiger.
- Glaze, *F. W.*, Young, *J. C.*, and Finn, *A. N.*, density of some soda-lime-silica glasses as a function of composition, *B.*, 306.

- Glaze, H. L. See McInerny, R. J.
- Glazkovski, V. A., and Shchukin, I., non-ferrous metals in Central Asia; deposits of Kara-Mazara, A., 1031.
- Glazunov, A., structure of troostite, A., 483. Determination of thickness and quality of zinc deposit on galvanised iron wires, B., 969.
- and Bartuněk, E., linear velocity of crystallisation of cathode deposit in electrolysis of lead salts, A., 913.
- and Janoušek, J., KZ, KG<sub>I</sub>, and KG<sub>II</sub> during formation of cathode deposit, A., 1127.
- and Peták, V., use of nitrophenols as etching reagents for iron and iron-manganese carbides, B., 968.
- and Rada, O., relation between direction of growth of cathode deposit and form of the lines of electric force, A., 1127.
- and Seif, K., crystallisation under the microscope;  $\beta$ -naphthyl benzoate, A., 818.
- Glazunov, I. V. See Oparin, A.
- Gleason, G. H., and Loonam, A. C., chemical process for treatment of sewage, B., 413.
- Loonam, A. C., and Guggenheim Bros., treating sewage, (P.), B., 734.
- Gleditsch, E., and Foyne, E., period of radium, A., 4.
- Glet, P. See Bünger, H.
- Glezin, V. M., microchemical reactions in plant fibres, A., 105.
- Glichitch, L. S., and Naves, Y. R., essential oils of *Ocimum canum*, Sims, and *Ocimum gratissimum*, L., B., 939. Determination of primary alcohols in essential oils by phthalic anhydride, B., 939.
- Gliek, D., and King, C. G., protein nature of enzymes; pancreatic lipase, A., 863.
- Glidden, K. E., and Patrick, W. A., polarisation currents due solely to changes in electrode area, A., 1122.
- Glidden Co. See Moore, C. G., Mutersbaugh, G. H., and O'Brien, W. J.
- Glietenberg, E. See Gen. Aniline Works.
- Glikman, S. A., thixotropic viscosity of cellulose esters. I., A., 350; B., 742.
- Glimm, H. O. See Klumb, H.
- Glimstedt, G. See Widmark, E. M. P.
- Glinka-Tschernorutzky, E., nitrogen metabolism of *Bacillus mycoides*. VI. Utilisation of various sources of nitrogen, A., 983.
- Glissmann, A., and Schumacher, H. J., thermal decomposition of ozone, A., 677.
- Global Corporation, silicon carbide bodies, (P.), B., 829.
- Globig, W. See Sauerwald, F.
- Glocker, R., X-ray spectrum and lattice binding force, A., 115. Force of linkings in lattice and X-ray spectrum, A., 213.
- and Kiessig, H., effect of lattice binding forces on fine structure of the carbon K $\alpha$  line, A., 993.
- and Schäfer, K., atom factor determination in the region of anomalous dispersion, A., 993.
- Wiest, P., and Woernle, R., X-ray detection of internal corrosion of twisted wire ropes, B., 790.
- See also Dehlinger, U.
- Gloekler, G., electron affinity of hydrogen, A., 1222. Crystal structure model, A., 1233.
- and Davis, H. M., Raman effect of methylacetylene, A., 1229.
- and Wilson, J. L., activation of molecular oxygen by electron impact, A., 132.
- Glömmé, H., ammonia and nitrate production in humus soils and factors influencing these processes, B., 1027.
- Glorieux, C. See Varhult, J.
- Glorifet, A. See Baume, J.
- Glötz, H. C., liver-glycogen content. IV. Glycogen and fat content of liver in toxic states in infancy, A., 973.
- Glover, A. M. See Taylor, A. M.
- Glover, E. C., action of surviving tissue on amino-acids, A., 1194.
- Glover, L. C. See O'Kane, W. C.
- Glover, L. H. See Richardson, C. H.
- Glover, T. J., influence of acid concentration on the oxidation-reduction potential of mixtures of ferric and ferrous sulphates in sulphuric acid solution, A., 231.
- Glover, W. H. See Courtaulds, Ltd.
- Glowaski, R. C., and Lynch, C. C., jun., densities of mixtures of benzene with phenylethyl alcohol and with methyl salicylate [at 25°], A., 1239.
- Glowatzki, E., determination of high-frequency conductivity of uni-univalent electrolytes, A., 1120.
- Gloyer, W. O., evaluation of applications of lime-sulphur for the control of apple scab, B., 805.
- Glück, A. See Walter, G.
- Glückauf, E. See Reis, A.
- Glukhovskii, I. E. See Mintz, I. B.
- Glushchakov, A. J. See Maljarov, K. L.
- Gluud, W., sodium nitrate, (P.), B., 266.
- and Keller, K., ferriocyanides, B., 588.
- Keller, K., and Nordt, H., preparation of oxygen by means of ammoniacal cobalt salt solutions, A., 684.
- Klempt, W., and Hill, H., decomposition of thiosulphates with sulphuric acid, A., 684.
- Klempt, W., and Seekamp, H., generation of electricity by combustion of hydrogen in the "gas cell," B., 635.
- Gnadinger, C. B., selenium; insecticide material for controlling red spider, B., 647.
- and Corl, C. S., pyrethrum flowers. V. Presence of pyrethrolon and methyl-pyrethrolon in the flowers, A., 544. Relative toxicity of pyrethrins and rotenone as fly-spray ingredients, B., 244.
- Gneist, K. See Golf, A.
- Gnezda, J., units of affinity and their specific number among the elements, A., 450.
- Gobeille, A. A. See Kenyon, C. F.
- Goble, A. T., and Mack, J. E., two vector problem in Pb v and Bi vi, A., 1220.
- Godard, J. S. See Parsons, C. S.
- Godchot, M., Canals, E., and Cauquil, (Mlle.) G., Raman spectra of cyclenes, A., 445.
- and Cauquil, (Mlle.) G., hydroaromatic compounds of the cyclooctane series, A., 1051.
- and Mousseron, M., 2-aminocyclopentanol and its resolution; resolution of 2-aminocyclohexanol, A., 156. Two methylaminocyclohexanols and their resolution into optical antipodes, A., 499. Preparation of aminocycloheptanols and their resolution into [optically] active components, A., 1047.
- Mousseron, M., and Granger, R., optically active aminocyclohexanols, A., 819. Preparation and resolution of aminocyclooctanols, A., 1047.
- Godefroy, C. A., rotary vacuum filtration of crystal sugar, B., 1029.
- Godel, A., active carbon and its industrial applications, B., 257.
- Godel, G. L., experiments with chemical herbicides, B., 118.
- Godfrey, G. H., chloropicrin injurious to greenhouse plants, B., 760.
- and Hagan, H. R., influence of soil pH on infection by *Heterodera radicicola* (Greeff), Müller, B., 404.
- Oliveira, J. M., and Gittel, E. B. H., duration of life of the root-knot nematode, *Heterodera radicicola*, in soils subjected to drying, B., 404.
- Godwin, P. W. See Pickard, R. J.
- Goebel, See Guthmann, H.
- Goebel, Erich. See Neumann, B.
- Goebel, Ernst, determination of jelly strength and the modulus of elasticity  $E_p$  of gelatin jellies, and effect of additions on the viscosity and  $E_p$ , A., 125. Measurement and significance of  $p_H$  of glue solutions, B., 400. Elastometer for determination of glue strength and modulus of elasticity, B., 438.
- Goebel, F. See Venulet, F.
- Göbel, J., use of asphalt-vaseline mixtures as fillers in high-voltage work, B., 875.
- Groebel, M. T., and Marvel, C. S., oxidation of Grignard reagents, A., 599. Rearrangements of polyenes. V. Reactions of 1:1'-bis-(1:3-diphenylindenyl), A., 1153.
- Goebel, W. F., and Babers, F. H., derivatives of glycuronic acid. I. Preparation of glycuronic acid from glyceuron; comparison of their reducing powers. II. Acetylation of glyceuron. III. Synthesis of chlorodiacetylglucose, A., 595, 698, 808.
- Goehler, O. E. See Hickman, K. C. D.
- Goeke, O., twenty-fifth anniversary of Brandt's introduction of iron oxide as a volumetric standard, A., 1266.
- Göler, von. See Agte, C.
- Göller, K. H., bating of hides and skins, (P.), B., 117. Preparation of casein substrates [for analysis of bating materials], B., 160. Measurement of enzyme activity of bating materials [for hides and skins], B., 277. Evaluation of bating materials [for hides and skins], B., 980.
- Gönczi, K. See Berkesy, L.
- Goens, E., elastic constants of single aluminium crystals, A., 768.
- Göpp, K. See Opitz, K.
- Goepp, R. M. See Chattaway, F. D.
- Görbing, J. See Hahn, F. V. von.
- Görlacher, H., danger of exhaust gases of internal-combustion, B., 98.
- Görlich, See Fringsheim, E. G.
- Görlich, P., theory of the multiplex-echelon grating, A., 202. Thermal and photo-electric emission of cesium-cesium oxide cathodes, and effect of cesium atoms in the dielectric, A., 999.
- Görne, J. See Pincussen, L.
- Gössl, V., characterisation of soils, soil types, and economic classes of soils by means of the 10% hydrochloric acid extract, B., 725. Pretreatment of soil samples for mechanical analysis, B., 881.
- Gössler, F. See Fuchtbauer, C.
- Göthlin, G. F., determination of vitamin-C standard and requirement of healthy individuals by measurement of the strength of skin capillaries, A., 434.

- Götte, E., washing effect. I. II. Washing effect of the sodium salts of higher, homologous alkylsulphonic acids, compared with their foaming power, surface activity, and state of distribution in aqueous solution. III. Constitution and washing effect, B., 797, 973.
- and Kling, W., wool swelling and felting in relation to the  $p_H$  of the wetting solution. I. Swelling of wool. II. Felting of wool, B., 262.
- Goettsch, E. See Weech, A. A.
- Goetz, A., diamagnetism of thin films of bismuth, A., 1002.
- Faessler, A., and Focke, A. B., magnetic anisotropy of colloidal crystals of graphite, A., 1236.
- Focke, A. B., and Faessler, A., large artificial graphite crystals, A., 1128.
- Goetz, A. W. See Theis, E. R.
- Götz, F. W. P., Dobson, G. M. B., and Meetham, A. R., vertical distribution of ozone in the atmosphere, A., 1027.
- Goeze, G. See Gassner, G.
- Goff, C. C., and Tissot, A. N., melon aphid, B., 37.
- Goff, J. T. See Westinghouse Electric & Manufg. Co.
- Goffart, G., origin of gold at Kiva, A., 1267.
- Goffart, H., control of the cabbage root fly (*Phorbia brassicae*, Bché.), B., 518.
- Gogoberidze, lower limit of particle size in disperse systems, A., 1115.
- Gohin, J., gas producers, (P.), B., 180.
- Gohlke, B. See Fischer, H. O. L.
- Gohr, E. J., and Standard-I.G. Co., treatment [hydrogenation] of hydrocarbons, (P.), B., 352.
- Goiffon, R., use of permanganate for clarification in determination of calcium in faeces, A., 301.
- and Waltz, J., detection of hæmatophrophyrin in, and extraction from, faeces, A., 413.
- Gokhale, V. G., and Gaywala, P. M., effect of contact of chemical fertilisers with seeds on their germination, B., 726.
- Golaz, M., viscosity of water, A., 218.
- Golba, T. E. See Botvinkin, O. K.
- Gold, A., and Stearn, A. E., new method of dye analysis, A., 520.
- Goldach, A. See Fichter, F.
- Goldberg, A. A. See Thorpe, J. F.
- Goldberg, D., and Abezgaux, I., recovery of ceresins from petrolatum at Max Miller plant in Baku, B., 453.
- Goldberg, I., effect of anterior pituitary extract on plasma-protein, A., 1086.
- Goldberg, M. See Jakubovitch, S.
- Goldberg, M. W. See Ruzicka, L.
- Goldberg, V. See Traube, I.
- Goldblatt, H., and Barnett, H. M., carotene and vitamin-A, A., 432.
- See also Reiehle, H. S.
- Goldblatt, M. W. See Elkington, J. St. C.
- Golden, P. L. See Storch, H. H.
- Goldenberg, Y. D., determination of hydrogen fluoride in air, A., 582.
- Goldfarb, W., and Himwich, H. E., ketonic substance production and destruction in certain tissues of diabetic dogs, A., 971.
- Goldfeder, A., preparation of the carcinogenic substance of fowl sarcoma, A., 1322.
- Goldfinger, P., and Schweinitz, H. D. (Graf von), autoxidation. VII. Absorption spectrum and dissociation constants of arsenious acid. VIII. Decomposition of dithionic acid. IX. Kinetics of sulphite autoxidation according to theory of radical chains, A., 25, 911, 1017.
- Goldhamer, S. M., glycolysis in the blood of patients with pernicious anæmia, A., 1069.
- Goldhammer, A. D., influence of surface charge on conductivity measurements of insulators, A., 888.
- Goldheim, S. L. See Cartledge, G. H.
- Goldich, S. S. See Muilenburg, G. A.
- Golding, F. D., sodium fluosilicate as a poison against the hoppers of *Locusta migratoria migratorioides*, R. and F., in Nigeria, B., 404.
- Golding, J., amyl alcohol for milk testing, B., 569, 1079.
- Mackintosh, J., and Mattick, E. C. V., milk of a typical herd of shorthorn cows. I., B., 362.
- Goldman, J. B., lipins in cell protoplasm; lipidal inclusions in cells of mesenchyme origin, A., 1318.
- Goldman, L. See Lamb, M. C.
- Goldmann, E. See Kritschewski, I.
- Goldmann, G., effect of feeding of distillery residues on properties and constituents of milk, B., 762.
- Goldmanówna, C. See Truszkowski, R.
- Goldovski, A., effect of heat on protein in the fat industry, B., 876.
- and Bozhenko, A., phosphorus-containing compounds in sunflower seeds, A., 1092. Carbohydrates of sunflower seeds, A., 1092.
- and Podolskaja, M., tannins of sunflower seeds, A., 1092.
- Goldovsky, (Mlle.) N. See Prot.
- Goldschmidt, F., chamber ovens, (P.), B., 579.
- Goldschmidt, S., and Freyss, G., configuration of natural (—)-tyrosine, A., 712.
- Freyss, G., and Strauss, K., proteins. III. Action of hydrochloric acid on silk, A., 1178.
- Martin, K., and Heidinger, W., proteins. X. Silk fibroin. II. Action of hypobromite on silk, A., 1178.
- and Pauncz, S., peroxidative and catalytic action of ferrous salts. II., A., 575.
- Goldschmidt, V. M., geochemical "clue" elements, A., 250. Geochemical considerations, A., 1029.
- Hauptmann, H., and Peters, C., consideration of the rare elements in mineral analysis, A., 686.
- and Peters, C., geochemistry of noble metals, A., 588. Geochemistry of beryllium, A., 589. Geochemistry of boron. I. and II., A., 928, 1137.
- Goldschmidt Akt.-Ges., T., [lead] glass, (P.), B., 62. Glazes or enamels, (P.), B., 106.
- Goldstein, H., and Francey, P., transformation products of bromonaphthastyril, A., 63. 8-Bromo- and -iodonaphthoic acids, A., 63.
- Koetschet, P., and Duboux, O., action of hydroxylamine on  $\beta$ -naphthaquinone derivatives, A., 507.
- Goldstein, J., treatment of glass, (P.), B., 10.
- Goldstein, L., quantum theory of diffusion of electrons, A., 4. Continuous spectra of the hydrogen molecule, A., 331. Quantum theory of inelastic electron collisions, A., 550. Mechanism of photochemical dissociation, A., 553. Recoil atoms in gaseous media: electronic affinity, A., 761.
- and Rocard, Y., paramagnetism and magnetic birefringence of gaseous or liquid oxygen, A., 765.
- Goldstein, R. F. See Imperial Chem. Industries.
- Goldsworthy, E. C. See Branch, G. E. K.
- Goldsworthy, M. C., and Green, E. L., promising fungicides, B., 839.
- Goldsztaub, S., crystal structure of goethite, A., 13. Crystal structure of sodium ferrite, A., 215.
- Goldthwait, C. F., and Textile Machinery Corp., modified cotton, (P.), B., 1007.
- Golf, A., and Gneist, K., ensilage with the "Aurich system" steel silos, B., 982.
- Golischeva, K. P., spectrum analysis of mitogenetic radiation from blood of living animals, A., 623.
- Goljachowski, N. V., action of magnesium on the heart and its behaviour towards potassium and calcium, A., 311.
- Goller, H. See Winkler, E. C.
- Gollmar, H. A., and Koppers Co., gas-dehydrating process, (P.), B., 455.
- Gollnow, G., practical laboratory improvements, A., 368. Colorimetric  $p_H$  determination with the simplified original Tödt drop apparatus, A., 686. Determination of  $p_H$  of biological liquids, A., 1094.
- Gollwitzer-Meier, K., and Bingel, A., detection of an acetylcholine-like substance in the skin, A., 1318.
- and Otte, M. L., detection of an acetylcholine-like substance by reflector vasodilatation, A., 859.
- Golombik, M. S., Lev, D. S., and Petin, N. N., chemical action of electrolytes in changing surface energy at the boundaries: metal-mineral oil-aqueous salt solution. I. and II., A., 347, 1242.
- Golouschin, N. S., and Jakovlev, R. S., analysis of shales, B., 691.
- Golubev, N. A., recovery of ferrous sulphate from bisulphate solutions used for pickling ironware, B., 747.
- Golvinetz, F. F., crude oil in the Kalmuitzko-Salskiya district, B., 210.
- Golwig, A., removal of fatty and pitchy matters from animal fibres and making them more readily feltable, (P.), B., 1003.
- Goma, T. See Yamamoto, R.
- Gomberg, M., and Gamrath, H. R.,  $(\text{ClO})_2$  radical, A., 1258.
- Gomm, A. S. See Garner, W. E.
- Gonell, H. W., loose weight, weight after compacting, and sedimentation volume as characteristics of finely-divided materials, B., 287. Granular composition as a characteristic of finely-divided technical materials, B., 575.
- Gonschewski, H., centrifugal metal-casting process, (P.), B., 69. Chromium-aluminium steels, (P.), B., 552.
- Gonser, B. W., and Amer. Smelting & Refining Co., apparatus for recovering furnace [zinc-retort] ventilator frame, (P.), B., 634.
- Gonzaga, A. C. See Sampooon, J.
- González, H. D., glycæmia in diphtheria, A., 85.
- Gonzalez, P. See Armangue, M.
- González Núñez, F., and Oliva, E., clinical micropyknometry. I. II. Micropyknometry of milk and determination of dietetic value, A., 969.
- See also Palacios, P.
- Gooch, S. D., and Coronet Phosphate Co., treatment of phosphatic material, (P.), B., 785.
- Waggaman, W. H., and Coronet Phosphate Co., oxidation of phosphorus, (P.), B., 669.

- Gooch, S. D. See also Waggaman, W. H.
- Good, A. J., and Connell, A. J., relationship between end-point and true b.p. [of hydrocarbon oils], B., 660.
- Good, C. A., Kramer, H., and Somogyi, M., determination of glycogen, A., 625.
- Good, S. J. See McBain, J. W.
- Goodale, C. D. See Wheeler, M. C.
- Goodall, F. L., fastness of wool dyeings to wet treatments, B., 424.
- Goode, E. A., and Summers, W. H., solubility of lead chromate in ammonium acetate and acetic acid solutions and determination of small amounts of lead, A., 137.
- Goode, G. P., formation of vitamin-A in maize sprouts by light, and transfer of the vitamin from the sprout to the grain, A., 870.
- Gooden, E. L. See Jones, H. A.
- Goodeve, C. F., three-dimensional models of the potential energy of triatomic systems, A., 1232.
- and Todd, F. A., chlorine hexoxide and chlorine trioxide, A., 1259.
- Goodlass Wall & Lead Industries, Ltd. See Singleton, W.
- Goodlet, A. B. See Nisbet, H. B.
- Goodman, L. A., sausage casings and other containers for edible products, (P.), B., 410\*.
- Goodman, M., Arbiter, N., and Powell, G., anhydrides of N-arylanthranilic acids, A., 1291.
- Goodrich, F. J. See Evans, Claire.
- Goodrich, R. J. See Du Pont de Nemours & Co., E. I.
- Goodrich Co., B. F., rubber compositions and their preservation, (P.), B., 240.
- and Leguillon, C. W., decorated rubber articles, (P.), B., 1070.
- and Semon, W. L., resilient rubber-like compositions, (P.), B., 930.
- See also Bedford, C. W., Boss, A. E., Bowers, H. E., Campbell, A. W., Dales, B., Fisher, H. L., Geer, W. C., Gray, H., Newton, E. B., Reed, M. C., Semon, W. L., Sloan, A. W., Taylor, B. S., Winkelmann, H. A., and Zimmerli, W. F.
- Goodwin, H. W. See Wilson, F. J.
- Goodwin, R. T., high-grade fuel oil made from cracked residue, B., 691.
- and Standard Oil Development Co., treatment of hydrocarbon residues containing inorganic substances, (P.), B., 537.
- Goodwin, T. H. See Cox, E. G.
- Goodyear, G. H. See Williams, R. J.
- Goodyear Tire & Rubber Co., vulcanisation of rubber, (P.), B., 116. [Aliphatic] diamines, (P.), B., 777. Preparing contact [hydrogenation] catalysts, (P.), B., 785. Hydrogenation of heterocyclic compounds, (P.), B., 856. Hydrogenation of primary aromatic amines, (P.), B., 856.
- and Andrews, G. G., cleaning of moulds [used in rubber-curing], (P.), B., 874.
- and Bateman, R. C., [vulcanisation] mould-cleaning solution, (P.), B., 678.
- and Calvert, W. C., viscose-latex coated fabrics, (P.), B., 462.
- and Clifford, A. M., 2-chloroaryloxythiazoles, (P.), B., 183. Deterioration inhibitor for rubber, (P.), B., 481. Age-resister for rubber compounds [etc.], (P.), B., 723. Accelerator of vulcanisation [of rubber], (P.), B., 723. Age resister, (P.), B., 802.
- Goodyear Tire & Rubber Co., and Clifford, A. M., antioxidant, (P.), B., 802.
- Disulphides from mercapto[aryl]-thiazoles, (P.), B., 907.
- and Lewis, W. K., preparation of gas black, (P.), B., 851.
- and Rowland, B. W., protected hydrogen electrode, (P.), B., 636.
- and Sebrell, L. B., antioxidant [for rubber], (P.), B., 319.
- Sebrell, L. B., and Clifford, A. M., antioxidant or age-retarder for rubber compounds, (P.), B., 723.
- and Wolfe, W. D., reaction [additive] products of hydroxydiphenyls and amino-materials [vulcanisation accelerators], (P.), B., 54.
- Goodyear's India Rubber Glove Manufacturing Co. See Randall, C. J.
- Gooskov, W., parallel float-and-sink testing [of coal] in carbon tetrachloride and zinc chloride, B., 132.
- Gootz, R., and Tunger, H., identification of lactose in urine, A., 738.
- See also Helferich, B.
- Gopala, S., and Murty, K., viscosity of colloids in presence of electrolytes, A., 1116.
- Gopalan, M. D. R. See Sircar, A. C.
- Gorbaeh, G., micro-extraction apparatus, A., 139.
- Gorbatshev, S. V., and Kasatkina, I. A., determination of iodides in presence of other halides, A., 135. Chlorine method of separating iodine, B., 146.
- Gorbunova, K. M., electro-crystallisation of metals. III. Structure of electrolytic deposits of silver from its fused salts, A., 768.
- Gorica, H. J. See Petersen, W. H.
- Gorczyński, W., simple spectrograph and measurements of absorption bands in the infra-red part of the solar spectrum made in North Africa during 1926—1927, A., 800.
- and Stenz, E., atmospheric transmission in the water vapour bands  $\rho$  and  $\phi$  according to spectrographic measurements made in Tunisia in 1926—1927, A., 660.
- Gordon, A. R., and Barnes, C., Deacon equilibrium and entropy of chlorine, A., 350.
- See also Reevly, W. O.
- Gordon, Beulah. See Denton, M. C.
- Gordon, Burgess, and Titherington, R. J., effects of cod-liver oil concentrate injections, A., 987.
- Gordon, H. B., automatic waterstill, A., 1135.
- Gordon, J., and Thompson, D. C., parallel action of neutral salts on the inhibition of complement and on dispersion of gelatin, A., 1066.
- Gordon, J. A., filter, (P.), B., 848.
- Gordon, J. J. See Noller, C. R.
- Gordon, M. A., and Amer. Chicle Co., recovery of chicle and similar gum from filter-press residue, (P.), B., 808.
- Gordon, N. E. See Wilson, F. J.
- Gordon, I. See Schvemberger, V.
- Gordon, W. T., gem stones, A., 1031.
- Gordonoff, T., expectoration and expectorants, A., 880.
- and Zurukzogn, S., un-irradiated ergosterol and vascular sclerosis, A., 435.
- See also Blumer, C.
- Gore, H. C., polarimetric determination of the saccharogenic power of flour, B., 936.
- Jozsa, S., Frey, C. N., and Standard Brands, Inc., textile treating [desizing] process and composition, (P.), B., 303.
- Gore, V., formation of sugars in mixtures of tartaric acid and aldehydes in tropical sunlight, A., 915.
- Gorelik, N. See Porai-Koschitz, A.
- Goresline, H. E., pipette electrode for determining  $p_{\text{H}}$  of biological fluids, A., 990.
- Gorev, K. V. See Bocharov, A. A.
- Gorham, W. G. See Dunlop Rubber Co.
- Gorhan, A., water-free ethyl alcohol, (P.), B., 661.
- Goria, C. See De Paolini, J.
- Goriachev, A. P., Nikitinukh, N. M., and Martianov, G. J., thick-coated electrodes for steel welding, B., 967.
- Gorman, M. A. See Gross, P. M.
- Gorni, M. See Wegner, P.
- Gorocholinskaja, M. See Petrenko-Kritschenko, P.
- Goroncy, C., and Berg, R., thallium poisoning, A., 532.
- and Urban, valves as a means of producing sparks for the spectroscopic analysis of very small quantities of metals, A., 480.
- Gorr, G., and Wagner, J., formation of sugar from formaldehyde in presence of alcohols, A., 937. Hydrolysis of amides by *Torula utilis*; dependence of development of enzymes in plants on nitrogen assimilation, A., 1332.
- Gorshtein, G. I., Chait, L. M., Vischnievski, N. A., and Drotan, A. J., preliminary technical-economic estimates for production of superphosphate and phosphorite meal from Ukrainian phosphorus-containing minerals, B., 305.
- and Vischnievski, N. A., preliminary technical-economic estimates for production of ammonium sulphate from gypsum, B., 304.
- Gorski, I., and Makarov, S., aromatic cyanohydrins and their transformation into quinomethide derivatives, A., 716.
- Gorter, C. J., Faraday effect in paramagnetic solutions, A., 448. Susceptibilities of paramagnetic solutions, A., 664. Paramagnetism of salts, A., 1002. Electric field in paramagnetic crystals, A., 1233. Remanence in single crystals of iron, A., 1237.
- De Haas, W. J., and Handel, J. van den, paramagnetic saturation of potassium chrome alum, A., 556. Magnetic behaviour of chromium compounds at low temperatures, A., 556.
- Gorter, E., Ormond, J. van, and Dom, F. J. P., spreading of ovalbumin, A., 21.
- and Seeder, W. A., proteins in unimolecular films; measurements by methods of du Nouy and Langmuir, A., 21.
- Gortikov, V. M., acidimetric method for determination of the alkali metals, A., 922.
- and Znamenskaja, L. A., gas-volumetric determination of potassium in soils, B., 758.
- Gortner, R. A., hydration capacity of starch, B., 807.
- Hoffman, W. F., and Northwest Paper Co., electrodialysis, (P.), B., 636. Electrical purification of water, (P.), B., 636.
- and McNair, J. J., a-celluloses from different wood sources, B., 619.
- See also Aronovsky, S. I., Jensen, O. G., Sinclair, W. Smith, Albert K., and Thor, G. J. B.

- Goryainova, N. S., determination of theobromine, B., 332.
- Goryunova, E. See Gubarev, A.
- Goshima, R. See Yamamoto, E.
- Goslin, R., and Allison, P., isotopes of uranium, thorium, and thallium, A., 204.
- See also Allison, F., and Jones, H. D.
- Gosman, B. A., study of the adsorptive power of active charcoals by the polarographic method, A., 1241.
- Goss, B. C., and Lake Erie Chem. Co., dense opaque smoke and irritating fume- and gas-producing chemicals, (P.), B., 775.
- Goss, F. R., interpretation of electric polarisation coefficients, A., 1231.
- Goss, H. See Gregory, P. W.
- Goss, J. See Hess, A. F.
- Goss, M. J. See Lynch, D. F. J., and Phillips, Max.
- Gosselin, A., new chemical theory: electrovalency, ionisation, free radicals, A., 766.
- Gossner, B., and Kraus, O., wöhlerite, A., 1107.
- and Neff, H., crystal structure of hydrohalides of ephedrine and  $\psi$ -ephedrine, A., 892. Crystal structure of hydrohalides of  $d$ - $\psi$ -ephedrine and  $l$ -ephedrine, A., 1004.
- and Reichel, C., crystal lattice of so-called orthosilicates, A., 116.
- and Strunz, H., structural relations between phosphates (triphylite) and silicates (olivine): composition of ardenite, A., 45.
- Gossrau, K. See Stamm, H.
- Gostimirović, D. See Borst, M.
- Goswami, M. N., and Chakravarti, A. K., new method of synthesising benzopyrylium compounds, A., 281.
- Gothard, H. A. S. See Parry, T. H.
- Gothie, S. See Fiessinger, N.
- Gottlieb, A. D., efficiency of blast furnaces operating on low-sulphur coke, B., 21.
- Cast iron and ammonia, B., 21.
- and Rulla, N. V., calculating charge in typical blast furnaces, B., 671.
- Goto, K., and Shibasaki, Y., sinomenine. XXXVI. New dihydroxythebaine, A., 841.
- and Shishido, H., sinomenine. XXXV. (—)Sinomenic acid and (—)-1-bromosinomenilone from thebaine. XXXVIII. Dihydrosinomenilone and its degradation, A., 618, 1313.
- and Takubo, K., sinomenine. XXXIV. Dihydrosinomenilone and its Hofmann degradation, A., 78.
- Goto, T. See Osugi, S.
- Gottdenker, F. See Rappaport, F., and Silberstein, F.
- Gottesmann, E., new condensing agent for the preparation of benzo- $\gamma$ -pyrones and their derivatives; mode of action of sulphoacetic acid during acetylation, A., 1055.
- Gottfried, C., structure of awillite,  $3\text{CaO} \cdot 2\text{SiO}_2 \cdot 3\text{H}_2\text{O}$ , A., 215. Endogene basic inclusions in tonalite from Adamello [Tyrol], A., 251.
- and Schusterius, C., structures of ammonium and potassium perchlorates, A., 215.
- See also Büsser, W.
- Gottlieb, I. See Arctowski, H.
- Gottlieb, S. See Downs, C. M.
- Gottschalk, A., antiketogenic action of carbohydrates, A., 183.
- Gottschalk, V. H., and Davis, C. W., magnetic material of high coercive force, B., 1011.
- Gottschall, G. See Benedict, S. R.
- Goubeau, J., effect of dissolved metallic perchlorates on the Raman frequencies of alcohols, A., 764.
- See also Birckenbach, L.
- Goubkin, S. I., mechanics of plastic deformation: flow of dural-min through orifices, B., 233.
- See also Bachmetev, B. F.
- Goubyrin, L., printing of black and grey reserves under sulphur colours by means of nitrosodimethylaniline, B., 303.
- Goudsmit, S., nuclear magnetic moments, A., 552.
- and Bacher, R. F., anomalies in hyperfine structure, A., 760.
- and Inglis, D. R., hyperfine structure of ionised lithium, A., 199.
- Goudswaard, A., determination of "silver husk" in rice, B., 522, 843.
- Gough, A., treatment of wool [for its removal from skins], (P.), B., 860.
- Gough, G. A. C., water-soluble proteins of the tubercle bacillus, A., 1033.
- and King, H., 4-nitro-5-(3-pyridyl)-pyrazole, a new oxidation product of nicotine. III. Confirmatory synthetic experiments, A., 616.
- Gough, H. J., and Sopwith, D. G., corrosion-fatigue characteristics of an aluminium specimen consisting of two crystals, B., 970.
- Gough, J., Duguid, J. B., and Davies, D. R., renal lesions in hypervitaminosis-D: urinary calcium and phosphorus excretion, A., 1212.
- and Zilva, S. S., silver nitrate staining reaction for ascorbic acid in the adrenal pituitary, and ovary of various species of animals, A., 1091.
- Gould, A. J., influence of solution concentration on severity of corrosion fatigue, B., 1060.
- See also Bleakney, W., and Taylor, H. S.
- Gould, B. S. See Horwood, M. P.
- Gould, S. P. See Whittier, E. O.
- Gould, W. S., and Osborne, W. B., [battery] separators, (P.), B., 555.
- Goulden, F. See Cook, J. W.
- Gounelle, H. See Merkle, P.
- Gourévitch, A., gold in sea-water, A., 368.
- Gourley, J. H., response of iris to soil reaction B., 201.
- and Smock, R. M., survey of Ohio orchard soils relative to phosphorus distribution and acidity, B., 401.
- See also Hopkins, E. F.
- Gouzon, B., production of urobilin by action of ultra-violet rays on chlorophyll and porphyrins, A., 725.
- See also Bierry, H.
- Govaert, F., determination of halogens in organic substances by the ammonia-sodium method; determination of fluorine in organic compounds, A., 408.
- Determination of halogens in organic compounds, A., 80. [Preparation of] acetamide and benzamide, A., 1230.
- Govakov, V. Y. See Virabyan, R. A.
- Govers, F. X., and Indian Refining Co., evaporation of liquids, (P.), B., 370.
- Recovery of solvents from mixtures [with mineral lubricating oils] containing the same, (P.), B., 952.
- Gow, (Miss) E. R. L. See McKenzie, A.
- Gow, P., potentiometers and hydrogen electrode, B., 433.
- Gower, C. H. R., and Windsor-Bowen, E., electrolytic treatment of aluminium or its alloys, (P.), B., 795.
- Goy, potash content of East Prussian soils, B., 803.
- Goyert, W. See Pfeiffer, P.
- Goyle, D. N. See Speers, P. C.
- Graaff, P. van der. See Kreulen, D. J. W.
- Grab, W., appearance of thyroid substances in blood after the action of the anterior lobe of the pituitary, A., 193.
- Grabfield, G. P., nitrogen and sulphur metabolism in Bright's disease. IV. Retention of urea in the nephrosis syndrome, A., 1321.
- Gračanin, M., relationship between transpiration and resorption of ions [in plants], A., 101. Ionic concentration as a factor in resorption, A., 197.
- Grace, N. H., and Maass, O., sorption of vapours on wood and cellulose, A., 121.
- Grace, N. S., solid polyiodides of the alkali metals, A., 473. Nuclear moments and their dependence on atomic number and mass number, A., 1101.
- Gračko, I. See Ofner, R.
- Grad, J., osmotic pressure of solutions of cellulose nitrate, A., 460.
- Grader, R. See Hilpert, S.
- Grădinescu, A. See Thomas, P.
- Gradstein, S., fluorescence of gaseous formaldehyde, A., 1229.
- Grady, R. F., jun., conversion of periodic kilns from coal firing to natural gas for firing glazed clay products, B., 387.
- Graebner, E., defects in rayon goods, B., 423.
- Graefe, L. See Heiduschka, A.
- Graeser, E. See Kohn, E.
- Graeser, J. B. See Friedemann, T. E.
- Graf, L. See Schulze, A.
- Graf, Otto (Dortmund-Münster), relation between blood-alcohol and the psychological effect of alcohol, A., 1198.
- and Flake, E., blood-alcohol after administration of alcohol, A., 1198.
- Graf, Otto (Stuttgart), I. Ballast for ferro-concrete. II. Behaviour of cement mortars in hot water. III. Permeability of cement mortars and concrete to water, B., 1010.
- Graf, R. [with László, P.], Rosenmund aldehyde synthesis in pyridine series, A., 1304.
- [with Lederer-Ponzer, E., Kopetz, V., Purkert, R., and László, P.], 5-chloro- and 5,6-dichloro-nicotinic acids, A., 1304.
- [with Lehmann, R.], 4-N-piperidylpyridine [4-piperidinopyridine], A., 1308.
- [with Thayer, A., and Purkert, R.], nuclear-substituted pyridine- $\beta$ -carboxydiethylamides, A., 1304.
- Graf, T.,  $\beta$ -ray magnetic spectrum of  $\text{Ac-B} + \text{C} + \text{C}' + \text{C}''$ , A., 883.
- Graf & Co., Akt.-Ges., R. See Mayr, A.
- Grafe, E., fate of pentose in healthy and diabetic system, A., 1074.
- Grafe, V., phosphatides of plant cells, A., 543.
- Graff, W., thermal analysis of system  $\text{BCl}_3\text{-Cl}_2$ , A., 676. Thermal analysis of system  $\text{HCl-BCl}_3$ , A., 1245.
- See also Rollet, A. P.
- Graham, A. K., cyanide zinc-plating baths using the aluminium-mercury-zinc anode, B., 750.
- and Hanson-Van Winkle-Munning Co., zinc-aluminium anode for electro-deposition of zinc, (P.), B., 794.

- Graham, C. E., and Griffith, W. H., studies on growth. I. Growth factors in liver. II. Effect of vitamins- $B_1$  and - $B_2$  on the consumption and utilisation of food, A., 646.
- Graham, C. F., device for the calibration of the variable-deviation spectroscope, A., 247. Telephonic drop counter, A., 927.
- Graham, G. A. See Wright, J. G.
- Graham, H. See Parke, J. B.
- Graham, J. E., and Bird & Son, Inc., [resilient] floor tile, (P.), B., 671.
- Graham, J. G., intestinal antipneumonia: observations on mice, A., 97.
- Graham, J. I. See Brit. Colliery Owners Res. Assoc., Coles, G., and Thomas, W. M.
- Graham, J. J. T., extractor for large quantities of organic material, A., 367.
- Graham, J. M. See Theis, E. R.
- Graham, K., non-pre-existence of azulene in milfoil, A., 1216.
- Graham, Robert. See Slatter, E. E.
- Graham, Roy, preparation of palaeobotanical sections by the peel method, A., 654.
- Graham, V. E. See MacEwan, J. W. G.
- Graham, W. C., and Gilchrist & Co., purification of solutions, (P.), B., 992.
- Grahame, J. H., and Texas Co., distillation of hydrocarbon oils, (P.), B., 456.
- See also Watson, C. W.
- Grain Machinery Co. See Haines, G. H.
- Gramenitzki, N. D., preparing bright stocks from Emba crude oils, B., 210. Preparing cylinder oils from Emba crude oils, B., 691.
- Gramke, B. E. See Kodak, Ltd.
- Gramophone Co., Ltd., Whyte, S., and Lord, W. E., transparent films for use as surface layers of pictorial sound records, (P.), B., 158.
- Granath, L. P. See Rose, J. L.
- Granger, A., classification of porcelains, B., 916.
- Granger, F. S., and Combustion Utilities Corp., phosphoric esters of tar acids, (P.), B., 535.
- Granger, R. See Godchet, M.
- Grangers Manufacturing Co., and Franke, E. J., [white] alkali cyanides, (P.), B., 1008.
- Grangiens, A. See Dolique, R.
- Granier, J., conductivity of rubber heavily loaded with lampblack, B., 557.
- Grant, A. G. See Whessoe Foundry & Eng. Co.
- Grant, D. H., and Standard Oil Development Co., insecticide, (P.), B., 647.
- Grant, G. A. See Harding, V. J.
- Grant, G. H., and Hinshelwood, C. N., kinetics of reactions in solutions; interaction of potassium hydroxide and the alkyl halides in ethyl alcohol, A., 470. Upper pressure limit in the chain reaction between hydrogen and oxygen, A., 909. Interaction of benzoyl chloride and aniline in carbon tetrachloride and hexane solution, A., 1251.
- See also Hinshelwood, C. N.
- Grant, Jean. See Spies, T. D.
- Grant, Julius, paper hygrometers, A., 1266. Nephelometry as an aid to industrial analysis and control, B., 991. Detection of a banknote forgery by means of ultra-violet light, B., 1050.
- and Booth, J. H. W., use of a simple Duboseq instrument for colorimetry, nephelometry, and colorimetric determination of  $pH$ , A., 585.
- Grant, L. S., jun., and Billing, W. M., glass spheres for viscosity determination of cuprammonium solutions of cellulose, B., 780.
- Grant, R. See Browne, J. S. L.
- Grant, W. M., reduction of metals from their oxides, (P.), B., 195.
- Granular Iron Co. See Hornsey, J. W.
- Graphitwerk Kropfmühl Akt.-Ges. See Lüdecke, G.
- Grass, H. See Guthmann, H.
- Grass, W. See Esser, H.
- Grasselli Chemical Co., fungicides, insecticides, etc., (P.), B., 485.
- and Alvord, E. B., insecticide [lead manganese arsenate], (P.), B., 728.
- and Frost, F. L., jun., trisodium phosphate hydrate-soap compositions, (P.), B., 718.
- and Lawrence, R. E., flaked lead acetate, (P.), B., 18.
- and Lutz, G., sulphurised cinchona bark inhibitor [for metal-cleaning and pickling baths], (P.), B., 553.
- and Seguire, W., jun., preparation of blanc fixe, (P.), B., 478.
- Seguire, W., jun., and Mertes, A. T., hydrated zinc oxide, (P.), B., 464.
- and Taylor, E. A., purification of sulphuric acid, (P.), B., 17.
- and Weinberg, W. H., burner-gas supply of uniform sulphur dioxide content, (P.), B., 386.
- See also Drefahl, L. C.
- Grassi, U., electric polarisation of vapours; anomalous behaviour of phosphorus trichloride, A., 1231.
- Grassmann, P., Raman effect of aqueous nitrate solutions, A., 764. Width of the 992 cm.<sup>-1</sup> benzene Raman line, A., 764.
- Grassmann, W., proteolytic enzymes of the animal and vegetable kingdoms, A., 94.
- and Mayr, O., yeast asparaginase, A., 427.
- Stadler, R., and Bender, R., enzymic fission of polysaccharides. I. Specificity of cellulose- and hemicellulose-splitting enzymes, A., 748.
- Zechmeister, L., Tóth, G., and Stadler, R., enzymic decomposition of cellulose and its fission products, A., 862.
- See also Alder, K., and Zechmeister, L.
- Grateau, (Mlle.), S., steric hindrance in the acylcyclopentanone series, A., 826.
- Gratias, O. A., and Collie, C. H., parent of protoactinium, A., 442.
- Grau, G. See Rother, P.
- Grauer, R. C., effect of parathyroid hormone and sodium hydrogen phosphate on bones of guinea-pigs, A., 1208.
- Grauss, G., centrifugal purifying machine for paper pulp and similar materials, (P.), B., 96.
- Gravel, L.,  $\beta$ -phenyl- $\beta$ -anthronylpropionic acid; 3-anthronylindan-1-one, A., 1164.
- See also Gagnon, P. E.
- Gravell, J. H., and Amer. Chem. Paint Co., material [inhibitor] for selectively controlling metal [steel] pickling in acid baths, (P.), B., 111.
- Graves, F. G., and Standard Oil Co. of California, treatment of petroleum oils, (P.), B., 537.
- Graves, G. D., and Standard Oil Co., recovery of wax from oils, (P.), B., 456.
- Graves, R. R. See Dawson, J. R., and Swett, W. W.
- Gravier, P. See Mousseron, M.
- Gray, C. E., and Turnbow, G. D., frozen food product, (P.), B., 651.
- Gray, C. G. See Nisbet, H. B.
- Gray, D., Northrop, B. K., and Oneida Community, Ltd., electroplated chromium article, (P.), B., 874.
- and Oneida Community, Ltd., electrodeposition of indium, (P.), B., 71.
- Gray, D. M., and Hazel-Atlas Glass Co., plastic composition [for sealing glass containers], (P.), B., 1020.
- Gray, G. H., [calendering] treatment of textile fabrics, (P.), B., 746.
- Gray, G. R. See Weiser, H. B.
- Gray, G. W., topping and cracking of oils, (P.), B., 100.
- and Texas Co., treating hydrocarbon oils [to recover gasoline or naphtha], (P.), B., 100.
- See also Dearborn, R. J.
- Gray, H., and Goodrich Co., B. F., composition of matter [for rubber vulcanisation and its production], (P.), B., 80.
- Gray, H. H., effect of nitrogen in combustion processes, A., 572.
- Gray, H. Le B., and Eastman Kodak Co., acetylating mixtures, (P.), B., 216.
- Staud, C. J., and Eastman Kodak Co., cellulose acetate, (P.), B., 542.
- See also Kodak, Ltd., and Staud, C. J.
- Gray, J. A., radiations from radium-D and -E, A., 4.
- Gray, N. M., nuclear spin of  $Li^7$  from hyperfine structure data, A., 1219.
- Gray, P., rapid technique for permanent mounting of minute fresh-water organisms, A., 299. Practice of fixation for animal tissues, A., 625.
- Gray, P. H. H., and McMaster, N. B., microbiological study of podsol soil profiles, A., 803.
- Gray, P. M. See Brit. Thomson-Houston Co.
- Gray, P. R., and Gray Processes Corp., distilling system [for hydrocarbon cracking], (P.), B., 616.
- Gray, R. A. H., and Brooks, H. E., winter spraying trials against the apple capsid bug on mixed varieties of apple trees, B., 1029.
- Gray, T. T., and Gray Processes Corp., refining of hydrocarbons, (P.), B., 138, 537, 855. Treatment of hydrocarbons, (P.), B., 295. Treatment of cracked hydrocarbons, (P.), B., 660.
- See also Brooks, B. T.
- Gray Processes Corporation. See Brooks, B. T., Dickinson, E. A., Gray, P. R., Gray, T. T., Herthel, E. C., Johansen, E. M., Mandelbaum, M. R., and Nisson, R. S.
- Graybiel, A. See Mueller, John Howard.
- Grayson, H. J. See Brady, O. L.
- Graziadei, H. T., technique of ion counting, A., 202.
- Graziansky, N. N. See Plotnikov, V. A.
- Great Western Electro-Chemical Co. See Hirschkind, W., and Rosenstein, L.
- Greatbatch, G. See Grindley, W. H.
- Greaves, E. O., and Greaves, J. E., nutritive value of high and low calcium-carrying wheat, A., 632.
- Greaves, J. Dudley. See Greaves, J. E.
- Greaves, Joseph D., and Schmidt, C. L., bile in absorption of vitamin-D in the rat, A., 1212.
- Greaves, J. E., and Greaves, J. Dudley, nitrogen fixers of leached alkali soils, B., 81.
- See also Greaves, E. O.



- Grebe, J. J., Boundy, R. H., and Dow Chem. Co., continuous recovery of bromine from sea-water, etc., (P.), B., 786.
- and Dow Chem. Co., heat-energy system, (P.), B., 768. Mercury vaporising apparatus [boiler], (P.), B., 768. Recovering bromine from sea-water, etc., (P.), B., 866.
- Sandford, R. T., and Dow Chem. Co., treatment of deep wells, (P.), B., 609. See also Jones, C. W.
- Grebe, W. E. See Noller, C. R.
- Grebel, A., isooctane index for motor fuels and cetene index for fuel oils, B., 773.
- Grebenik, A. A. See Budnikov, P. P.
- Greco, R., neurolytic properties of cerebrospinal fluid, A., 1185.
- Gredy, (Mlle.) B., [Raman effect and] acetylenic linking: di-substituted acetylenes, A., 553. [Raman effect and] acetylenic linking:  $\Delta^2$ -acetylenes, A., 886.
- See also Lespieau, R., and Risseghem, (Mlle.) H. van.
- Greeman, O. W. See Aluminium, Ltd.
- Green, A. A., preparation of acetate and phosphate buffer solutions of known pH and ionic strength, A., 781.
- Green, A. C. See White, F. D.
- Green, A. T. See Clews, F. H., and Hugill, W.
- Green, D. E., reduction potentials of cysteine, glutathione, and glycyl-cysteine, A., 785. Potentials of ascorbic acid, A., 1015.
- See also Chambers, R.
- Green, E. L. See Goldsworthy, M. C., and Kertesz, Z. I.
- Green, F. B., floor covering, (P.), B., 79.
- Green, F. M., infection of oranges by *Penicillium*, B., 37.
- Green, H. J., [method of attaching refractory material to water-walls of] furnaces, (P.), B., 4.
- Green, J. See Johnson, A. H.
- Green, J. B., Paschen-Back effect and hyperfine structure of Bi II, A., 201.
- and Loring, R. A., Zeeman effect of lead II, III, and IV, A., 440. Zeeman effect of the spectra of Sb II and Sb III, A., 1219.
- Green, J. F. See Bradt, W. E.
- Green, J. R. See Martin, W. McK.
- Green, J. W. See Hopkins, R. H.
- Green, L. W., and Schoetzw, R. E., resistance of mineral oils to decomposition by sunlight, B., 211. Determination of minute amounts of peroxides in ether, B., 616.
- Green, N. D. See Elder, A. L.
- Green, S. J., catalytic reduction of aromatic nitro-compounds, B., 260, 539.
- Green, W. H., and Gen. Zeolite Co., mixing apparatus; liquid treatment, (P.), B., 369.
- Green, W. J., hydroxyl group and soap film structure, A., 900.
- Greenawalt, J. E., methods of cooling sintered material, (P.), B., 735. Constituting a charge for sintering, (P.), B., 833.
- Greenawalt, W. E., copper extraction process, (P.), B., 472.
- Greenbank, G. R., and Holm, G. E., photochemical oxidation of cottonseed oil, B., 275.
- and United States, inhibiting oxidation of unsaturated fats, oils, fatty acids, and substances containing fatty material having a tendency to become rancid, (P.), B., 975.
- Greenberg, D. M., and Greenberg, L. D., is there an unknown compound of nature of calcium citrate present in the blood? A., 294.
- and Greenberg, M. M., ultra-filtration. II. "Bound" water (hydration) of biological colloids, A., 523.
- and Gunther, L., diffusible calcium in the blood-stream. V. Influence of agents which affect blood-calcium on calcium distribution and inorganic phosphate of serum, A., 174.
- Lucia, S. P., Mackey, M. A., and Tufts, E. V., magnesium content of plasma and red corpuscles in human blood, A., 522.
- and Mackey, M. A., effect of parathyroid extract on blood-magnesium, A., 98. Determination of magnesium in blood with 8-hydroxyquinoline, A., 294.
- See also Gee, H., and Larson, C. E.
- Greenberg, L. D. See Greenberg, D. M.
- Greenberg, M. M. See Greenberg, D. M.
- Greene, A. E., combustion-arc process [or ore reduction], (P.), B., 25. Electric induction furnace [for melting scrap metal], (P.), B., 72.
- Greene, F. C., means for heat-treating material, (P.), B., 815. Apparatus for carbonising coal, etc., (P.), B., 820. Fuel-gas generator, (P.), B., 851.
- Laucks, I. F., and Old Ben Coal Corp., carbonisation of coal, (P.), B., 213.
- Greene, H. C. See Petersen, W. H.
- Greene, J. W. See Souther, B. L.
- Greene, L. W., and Leaper, J. M. F., para rubber-seed oil as a substitute for linseed oil in foundry-core binders, B., 877.
- Greene, M. R., effects of vitamins-A and -D on antibody production and resistance to infection, A., 541.
- Greene, O. V., filter mechanism, (P.), B., 97.
- Greene, R. A., and Foster, E. O., liquid wax of seeds of *Simmondsia californica*, A., 1093.
- Greenhalgh, R. See Imperial Chem. Industries.
- Greenhill, A. W., and Page, H. J., employment of a mixture of sand and calcium bentonite as growth medium in pot culture and establishment therein of a sward of perennial rye grass, B., 760.
- Greenleaf, R. M., and Frosted Wool Process Co., cleaning of wool, (P.), B., 502.
- Greensfelder, B. S., continuous regulation of neutralisation of oils after acid treatment, B., 454.
- Greenstein, J. P., peptides of tervalent amino-acids. III. Apparent dissociation constants, free energy changes, and heats of ionisation of peptides involving arginine, histidine, lysine, tyrosine, and aspartic and glutamic acids, and behaviour of lysine peptides towards nitrous acid, A., 1012.
- See also Bergmann, M.
- Greenstreet, C. J., conversion of coal-distillation products, particularly tar acids or products containing same, into valuable hydrocarbons substantially free from tar acids, (P.), B., 951.
- and Adams, R. F., treatment of [heavy] hydrocarbon oils, (P.), B., 500.
- Greenwald, W. F., and Weisberg & Greenwald, Inc., [phenol-formaldehyde] synthetic resins, (P.), B., 596.
- See also Weisberg, L.
- Greenwood, E. L. See Brit. Celanese.
- Greenwood, G., correct setting of crystals; [structure of methylammonium cupri-chloride and dimethylammonium chlorostannate], A., 891.
- Greenwood, J. N., influence of impurities on properties of lead. I. Introduction, B., 309.
- and O'Malley, G. B., factors determining properties of white bearing metals, B., 391.
- Greenwood, M. See Hartley, K. T.
- Greenwood, T. T., and Condit Electrical Manufg. Corp., providing the casings of electrical apparatus with inert atmospheres, (P.), B., 716.
- Greer, P. S. See Cox, H. L.
- Gregg, A. W., Frank, R. H., and Bonney-Floyd Co., wear-resisting ferrous alloy, (P.), B., 632, 972.
- See also Mitchell, H. A.
- Gregg, D. E., relation of carbohydrates and lipins in the perfused liver, A., 1326.
- Gregg, M. G., and Flintkote Corp., emulsions, (P.), B., 689.
- Grégoire, P. E., action of erythrocytes on acetoacetic acid, A., 1315.
- Gregory, C., calculation of specific heats of diatomic gases by quantum statistics, A., 16.
- Gregory, E. See Bell, M. E.
- Gregory, F. G., simple device for regulating gas flow, A., 586.
- Gregory, H. S., and Archer, C. T., thermal conductivity of air, A., 343.
- Gregory, P. H., *Fusarium* bulb rot of narcissus, B., 119.
- Gregory, P. W., and Goss, H., relation of thiol concentration to size inheritance in the rabbit, A., 1075.
- Gregson, J. See Johnson, C.
- Greider, H. W., and Carey Manufg. Co., P., magnesium process and magnesium values recovery, (P.), B., 464. Porous [building] materials, (P.), B., 707.
- Greig, J. W., Merwin, H. E., and Shepherd, E. S., volatile transport of silica, A., 133.
- Greiner, A., Schirmer, R. E., and Witter, L. L., metallic treatment of vitreous materials, (P.), B., 749.
- Greiner, B., and Jelinek, K., vapours of reciprocal salt-pair NaCl-KI and of binary mixtures PbCl<sub>2</sub>-PbBr<sub>2</sub>, PbCl<sub>2</sub>-PbI<sub>2</sub>, PbI<sub>2</sub>-CuI, and CdCl<sub>2</sub>-CdBr<sub>2</sub>, A., 770.
- Greiner, E., width of the discharge in the electron counter, A., 550.
- Greiner, E. S. See Jette, E. R.
- Greiner, H. See Koenigs, E.
- Greisen, E. C., and Allis-Chalmers Manufg. Co., drying cylinder, (P.), B., 688.
- Greisheimer, E. M., and Army, F. P., variations in constituents of the blood of relatively normal individuals, A., 1181.
- See also Boynton, R. E.
- Greiver, N. S. See Aseev, N. P.
- Gremels, H., energetics of mammalian heart, A., 417.
- Grenagle, J. B., and Varney, W. W., [zirconium-uranium] alloy, (P.), B., 70. Reducing ores and obtaining new products thereof, and separating and purifying the products, (P.), B., 713.
- Varney, W. W., and Universal Alloys, Inc., electrolytic metal depositing, (P.), B., 236.
- Grenet, G., ferromagnetic powders and magnetic susceptibility of rocks, A., 1233.
- Grenz, A. See Grimmer, W.

- Gress, G. C. See Preston, A. C.
- Grethe, K., and Stoecker, J., and Paschke, M., effect of silica content of iron ores on smelting costs, B., 868.
- Grethe, T., tea entirely or almost entirely free from theine, (P.), B., 171.
- Grether, E. F., fertiliser composition, (P.), B., 728.
- and Dow Chem. Co., diaryl ether derivatives, (P.), B., 261. 2-Halogeno-4-aminodiphenyl ethers, (P.), B., 907. Preparation of [pure] antipyrine, (P.), B., 939. Alkyl ethers of halogenated *p*-hydroxydiphenyls, (P.), B., 999. Acyl derivatives of 4:4'-diaminodiphenyl oxide [ether], (P.), B., 999. Azo-dyes, (P.), B., 1001. Preparation of aminodiaryl ethers [4:4'-diaminodiphenyl ether], (P.), B., 1048.
- Gretschuschnikov, A. I. See Richter, A. A.
- Grettle, D. P., gum guaiac—a new antioxidant for oils and fats, B., 878.
- See also Jensen, L. B., Newton, R. C., and Swift & Co.
- Greuter, J., recovery of asphaltic bitumens from solutions, as far as possible without altering their properties, B., 338.
- See also Moxer, F. R.
- Greve, E. W. See Hopkins, E. F.
- Greville, G. D. See Dickens, F., and Stern, K. G.
- Grewe, E., variation in weight of a given volume of different flours. III. Causes for variation, milling, blending, handling, and time of storage, B., 168. Effect of moisture content of flour on heat of imbibition developed during the mixing of bread dough, B., 488.
- Grewin, F., continuous treatment of paper refuse, old paper, wood pulp, cellulose, etc., in the preparation of paper pulp, (P.), B., 665.
- Gribojedov, D. N. [with Varenkov, P. V.], influence of vat dyes on strength of wool fibres, B., 622.
- Gribov, K. A. See Voroshechov, N. N.
- Grieb, C. M. W., and Jones, R. H., phosphides of nickel: reaction between phosphorus and nickel carbonyl, A., 40.
- Griebel, C., determination of chlorogenic acid in raw and roasted coffee, B., 650. Detection of *p*-phenylenediamine, B., 1046.
- and Weiss, F., detection of *p*-phenylenediamine and other diamines [p-tolyl-enediamine] in hair dyes, B., 582.
- Grieg, (Miss) M. E. See Basterfield, S.
- Grieger, P. See Ruff, O.
- Griem, W. B. See Meloche, V. W.
- Griengl, F., and Baum, R., electro-potentials of ternary gold-tin-mercury alloys, A., 127.
- Kofler, O., and Radda, M., relation between the turbulent internal friction and the constitution of liquids, A., 453.
- See also Kremann, R., and Pongratz, A.
- Griesedieck, H. See Elzemeyer, E. E.
- Griessbach, R., solutions of colloidal silica and their use in industry, B., 426.
- Kollmann, T., and Agfa Ansco Corp., photosensitive emulsions, (P.), B., 813.
- Weiss, Hans, and Ohio Sanitary Eng. Corp., fertiliser, (P.), B., 805.
- Grieve, A. D., Gurd, G. W., and Maass, O., solubility of lime in water and specific conductivities of its saturated solutions, A., 897.
- Grieve, W. H. See Lightalloys, Ltd.
- Grieve, W. S. M., and Hey, D. H., substitution in compounds containing two or more phenyl groups. IV. Nitration of diphenyl derivatives containing *m*-directing substituents, A., 1051.
- Griffen, C. W., influence of bunker enriching oil on composition of distillates from water-gas tar, B., 210.
- Griffin, A. E. See Weston, R. S.
- Griffin & Tatlock, Ltd., and Turfery, J. C. O., apparatus for examination of substances by ultra-violet light, (P.), B., 848.
- Griffith, H. G. See Craise, F. L.
- Griffith, I. See Harris, L. E.
- Griffith, R. H., and Hollings, H., analysis of hydrocarbon oils, B., 949.
- Griffith, R. O., and McKeown, A., thermal reactions of phosphorus acid with bromine and chlorine, A., 574.
- McKeown, A., and Winn, A. G., photo-reactions of oxalates with bromine and iodine. I and II, A., 237.
- Griffith, W. H. See Graham, C. E.
- Griffiths, E., thermal insulation, B., 815.
- See also Awbery, J. H.
- Griffiths, H. N., Hilditch, T. P., and Rae, J., stability of vitamin-A in cod-liver oil emulsions, B., 284.
- Griffiths, J. G. A. See Norrish, R. G. W.
- Griffiths, W., and Foulger, F., [preparation of] mastic asphalts and agglomerates, (P.), B., 952.
- Griffiths, W. J. See De Wesselow, O. L. V. S.
- Griffiths, W. T., American and Continental practice in nickel deposition, B., 591.
- See also Jones, D. G., and Mond Nickel Co.
- Griffon, H., verification of analytical technique for biological media, by the method of added quantities, A., 1218.
- Grifoli, I. See Jimeno, E.
- Grigaut, A., colorimetric determination of free cholesterol in blood-serum, A., 410.
- Grigersik, G., analysis of chemical reactions, A., 572.
- Grigg, P. P. See Mathias, E.
- Griggs, A. R. See Humphreys & Glasgow, Ltd.
- Griggs, R. F. See Smith, N. R.
- Grignard, V., and Celonge, J., condensation of ketones, A., 1277.
- Grigoraki, L., new medium for conserving dermatophytes (pleomorphism, acquired character, tissue specificity), A., 330.
- Grigoriev, A. See Isaev, S.
- Grigoriev, A. T., palladium-nickel alloys, A., 18. Alloys of gold with antimony, A., 118. Alloys of palladium with antimony, A., 118.
- Grigoriev, P., and Nastaskina, E., determination of nitrate nitrogen, A., 798.
- Grigoriev, P. N., determination of boric acid in glasses and enamels, B., 866. Rapid analysis of Portland cement, B., 1010.
- Grigorieva, V. F. See Ivanov, N. N.
- Grigorovska, A. M. See Magidson, O. Y.
- Grigsby, H. D., detection of decomposition in eggs, B., 40.
- Grigsby-Grunow Co. See Miller, H. J.
- Grijns, G., and Dingemanse, E., diet and reproduction. IV. Bipartite nature of vitamin-E, A., 757.
- Grill, F., microscopical identification of ephedrine with nitrous acid, A., 80.
- Grillet, L., variation in intensity in radiation emitted by a mercury vapour arc during lighting, A., 880.
- Grillet, N. B. See Du Pont de Nemours & Co., E. I.
- Grime, G., and Bessey, G. E., cementing material of sand-lime bricks, B., 229.
- Grimes, M., Cummins, H. A., and Kennelly, V. C. E., fungi found in milk, cream, and butter, B., 408.
- Grimm, J. See Krüger, W.
- Grimm, W. W. See MacCubbin, A. A.
- Grimme, C., "Etrates," a new highly-active type of drug. III. Determination of the active constituents. IV. Evaluation of present standards. V. Etratum salviae, B., 250. Determination of arbutin in *Folia urae ursi* and its preparations, B., 1084.
- Grimme, W. See Tramm, H.
- Grimmer, W., and Grenz, A., catadyno process, B., 937.
- and Rauschnig, S., peroxidase reaction and metals, A., 1080.
- and Schrader, A., souring of milk, B., 168.
- and Teitelbaum, M., peroxidase, A., 533.
- Grimshaw, A. H., comparison of rosette and flannel-cotton methods of wetting-out or sinking tests, B., 504.
- Grimshaw, W. E. See Crow, A. D.
- Grimsley, L. B. See Muskat, I. E.
- Grinberg, emission of positive electrons by  $\gamma$ -rays of  $Ra-B + C$ , A., 883.
- Grinberg, A. A. See under Grünberg, A. A.
- Grindley, W. H., Norman, D. G., Greatbatch, G., and Massey, A., apparatus for drying pottery, tiles, etc., (P.), B., 190.
- Gring, J. L. See Smith, G. F.
- Gringoire, J. D. See Labbé, M.
- Grinten, W. van der, use of monochromatic radiation in X-ray scattering in gases, A., 12. Effect of temperature and use of monochromatic radiation in the scattering of X-rays in carbon tetrachloride vapour, A., 1003.
- Gripenberg, W. S., selenium or selenide rectifier? A., 8.
- Grisbaum, L. D., and Railway Service & Supply Corp., dehydration of [mineral lubricating] oil, (P.), B., 10.
- Grischin, I. J., and Spryskov, A. A., sulphonation of naphthalene *in vacuo*, B., 421.
- Grischkun, E. V. See De Kolosovski, N. A.
- Griscom-Russell Co. See Brown, S.
- Grisenthwaite, A. T. See Power-Gas Corp.
- Grissold, G. G. See Bills, C. H.
- Griswold, G. G., jun. See Morrow, B. S.
- Griswold, G. H. See Herrick, G. W.
- Griswold, T., jun., and Dow Chem. Co., apparatus for conducting chemical reactions, (P.), B., 2. [Manufacture of phenol by] hydrolysis of halogenated benzene, (P.), B., 218. Segregation of light metal [magnesium] floating on fused electrolyte, (P.), B., 236. High-temperature indirect heating, (P.), B., 607.
- Gritzovich, E. V. See Nikolaiev, V. I.
- Gritzovich, G. V., low-temperature carbonisation of Lisichanski coal, B., 496.
- Grob, A. R., and Nat. Aniline & Chem. Co., Nutsch filtration, (P.), B., 370.
- Grodinsky, M., Beber, M., and Baker, C. P., test for presence of novocaine in nervous tissue, A., 744.
- Groebhels, F., effect of vitamins on growth, length of life, and fertility, A., 1088.
- Groeneveldt, J. R. de B. See De Kromme, L.

- Groenewald, J. W., mineral metabolism. XXV. Effect of calcium and magnesium supplements on growth of Merino sheep, A., 530.  
See also Du Toit, P. J.
- Grönroos, H. V., road and building materials, electric insulation materials, etc., (P.), B., 63.
- Groff, F., See Carbide & Carbon Chemicals Corp.
- Groff, J., graphical interpretation of the viscosities of lubricating oils at various temperatures, B., 8.
- Grogan, H. L., composition of bagasse fractions obtained by sifting, B., 361.
- Grogan, J. D., and Scheffeld, T. H., influence of volatile chlorides on magnesium and on copper, B., 351.
- Groggins, P. H., preparation of 4- and 2-hydroxy-*p*-phenyl-*o*-benzoylbenzoic acids [4'-*o*-carboxybenzoyldiphenyls], (P.), B., 261. Amination by ammonolysis. IV. and V., B., 340.  
and Nagel, R. H., Friedel-Crafts reaction; effect of size of aluminium chloride particles in preparation of keto-acids, B., 997.  
and Newton, H. P., preparation of 1:2- and 2:3-diaminoanthraquinones, A., 1299.  
and Stirtion, A. J., amination by ammonolysis. I.—III. A., 277, 396.
- Groggins, S. S., and Coloxide Patents Corp., bleaching and decolorising of hair, animal fibres, and fur skins, (P.), B., 700.
- Groll, H. P. A., vapour-phase cracking, B., 691.
- Groll, J. T., dyeing of wool without dyes, B., 103.
- Grollman, A., and Firor, W. M., adrenal. III. Active extract of hormone of the adrenal cortex, A., 642.  
and Geiling, E. M. K., cardiovascular and metabolic reactions of man to the intramuscular injection of posterior pituitary liquid [pituitrin], pitressin, and pitocin, A., 193.
- Grondahl, L. O., and Union Switch & Signal Co., preparing metal for use in unidirectional-current carrying devices, (P.), B., 396.
- Groombridge, W. H., See Brit. Celanese.
- Grothoff, A., and Henry, T. A., preparation, analysis, and standardisation of totaquina, B., 411.
- Groove, E., electric dry batteries, (P.), B., 26.
- Gropengiesser, C., aqueous colloidal solutions [of lead, copper, and iron oxides], (P.), B., 267.
- Grosclaude, R. E., molybdenite at Azegur (Morocco), A., 692.
- Groscurth, G., and Glass, J., change in physico-chemical properties of haemoglobin and in the acid-base equilibrium after splenectomy in dogs, A., 174.  
See also Glass, J.
- Groshev, P. K., See Shumilov, A. A.
- Groskopf, E. O., and Flintkote Corp., fibrillation of emulsions, (P.), B., 781.
- Gross, A., See Hüchel, W.
- Gross, B., pressure and temperature dependence of ionisation by cosmic rays, A., 206. Absorption of cosmic rays, A., 763.
- Gross, C. R., interference of pyridine derivatives in arsenic determination, A., 243. Sources of error in the Gutzeit method for determination of arsenic, A., 1023.
- Gross, E., and Grosse, Arno, toxicology of *o*-tolyl phosphate, A., 184.
- Gross, F., See Büssem, W.
- Gross, G., colouring brass with solutions, B., 431.
- Gross, H., See Signer, R.
- Gross, J. E., and Aurora Sign Co., [electrode for] luminous tube, (P.), B., 674.
- Gross, P. M., Saylor, J. H., and Gorman, M. A., solubility. IV. Solubilities of slightly soluble organic compounds in water, A., 345.  
See also De Bruyne, J. M. A.
- Gross, W. F., Sappington, C. N., and Amer. Smelting & Refining Co., refining of lead, (P.), B., 874.
- Gross, W. H., See Gann, J. A.
- Grosse, Aristid von, origin of actinium series of radioactive elements, A., 110. At. wt. of lead from Katanga pitchblende, A., 1099.
- Grosse, Arno, See Gross, E.
- Grosser, J., castor oil and Turkey-red oil in the soap industry, B., 28. Determination of oxidised fatty acids, B., 1065.
- Grosset, T., qualitative analysis of the arsenic and iron groups by specific reactions, A., 583. Electrolytic analysis of bismuth, tin, lead, and antimony without mechanical agitation of the electrolyte, B., 751.
- Grossfeld, J., semi-micro-data for butter fat and cacao butter, B., 27. Determination of "solid" and "higher saturated" fatty acids in edible fats, B., 476.  
Egg oil, B., 476. Baking experiments with [and evaluation of] rusks, B., 488.
- Grosskopf, W., chemical and morphological examination of the origin of forest humus, A., 46.
- Grossman, H., and Pritchard, W. S., accelerating the settlement of pigments [in aq. suspension], (P.), B., 355.
- Grossman, M., metal-coated [fabric] products, (P.), B., 913.  
and Jenaer Glaswerk Schott & Gen., distributor for extraction apparatus, (P.), B., 816.
- Grosvenor, W. M., See Lloyd, E. A.
- Grosz, B., dependence of ionisation by cosmic radiation on pressure, A., 552.
- Grote, J. W., microchemical methods as applied to spots on textile fibres, B., 742.
- Grote, W., and Krekeler, H., determination of sulphur and halogens in combustible materials, B., 290.
- Groten, F. J., See Brit. Thomson-Houston Co.
- Groth, W. H., See Wynd, C. L. A.
- Grove, C. J., and Grove, C. T., blood-phosphorus insufficiency in pyorrhœa, A., 1189.
- Grove, C. S., See Randolph, E. E.
- Grove, C. T., See Grove, C. J.
- Grove, E. F., anaphylaxis in the rabbit. I. Hypersensitiveness in rabbits to egg-white and horse-serum. II. Effect of histamine, barium chloride, and adrenaline on unstripped muscle of the guinea-pig and rabbit. III. Sensitisation of rabbits with fowl corpuscles. IV. Anaphylactic shock in different animal species. V. Role of unstripped muscle in acute anaphylaxis, A., 745.
- Grove, H. A., See Harder, O. E.
- Grove, O., See Barker, B. T. P.
- Grover, H. F., See Jones, E. R.
- Groves, K., See Foulk, C. W.
- Groves, W. W., See I. G. Farbenind.
- Grozni Petroleum Research Institute, distillate obtained in shell stills on distillation of paraffinic heavy bottoms to coke, B., 949.
- Grubb, A. C., See Thode, H. G.
- Grubb, W. J., See Howards & Sons, Ltd., and Read, J.
- Grube, G., and Beischer, D., electrochemical behaviour of platinum. III. A., 235. Electrochemical behaviour of palladium. I. Electrolytic deposition of palladium and palladium-silver alloys from solutions of complex salts, A., 358.  
and Haefner, R., diffusion of metals in the solid state. VI. Copper and aluminium, A., 17.  
and Vaupel, F., influence of pretreatment on the mechanical properties and electrical conductivity of aluminium containing magnesium silicide, B., 551.
- Vosskübler, H., and Vogt, H., electrical conductivity and phase-rule diagrams of binary alloys. VII. System lithium-cadmium, A., 18.
- Gruber, G., and Pellegrini, A. F., creatinine as a source of error in blood-sugar determination by the Creclius-Seifert method, A., 1065.
- Gruber, H., preparation of carbon-free alloys from carbonised ferrochromium, B., 1012.  
and Rohn, W., reduction of chromic oxide to chromium by means of gases, B., 1014.
- Gruber, W., See Ascherl, A.
- Grubitsch, H., See Jantsch, G.
- Grün, K., centrifugal pumps for special purposes, B., 767.
- Grün, R., weathering of building stones from the chemical viewpoint, B., 589. Influence of magnesium oxide on the strength of mortar, B., 965. Hydration [of cement], B., 1057.  
and Beckmann, H., stability of hardened blast-furnace cement against sulphate solutions and distilled water, B., 107.
- Grünberg, A. A., complex compounds, A., 1131.  
and Ptizyn, B. W., thermal decomposition of bivalent platinamines, A., 41. Geometrically isomeric platinodiglycines, A., 381.
- Grünberg, O. I., See Flerov, K. V.
- Gründel, H. J., action of accelerators [of vulcanisation of rubber], B., 158.
- Gründer, W., determination of the particle size in rye and wheat flours, B., 408.
- Grüneisen, E., temperature dependence of electrical resistance of pure metals, A., 452.
- Grüner, H., See Brigl, P.
- Grünert, A., blackening or subsequently colouring pictures in graphite, etc., on paper, (P.), B., 45.
- Gruenman, V., examination of paper and cellulose in ultra-violet light, B., 57.
- Grünsteidl, E., influence of filter-paper on hydrochloric acid, A., 134. Potassium iodide as spot reagent for heavy metals, A., 137. Measurement of fluorescence colours, A., 800.
- Grüss, J., [biological] completion of honey analysis, B., 42. Properties of large and small grains of [barley] starch, B., 121.
- Grüssner, A., See Reichstein, T.
- Grüter, M., See Schlossmann, H.
- Grützmacher, See Guthmann, H.
- Grumbt, J. A., See Bošnjaković, F.

- Grumell, E. S., and Davies, I. A., calculating the calorific value of a fuel from its ultimate analysis, B., 610.
- and King, J. G., sampling of coal and coke, B., 376.
- Grumez, (Mme.) M. See Ramart-Lucas, (Mme.) P.
- Grundberg, V. See Alber, H.
- Grunder, F., fibrous [heat- and sound-] insulating products, (P.), B., 629.
- Grunder, M. S., yield and chemical composition of pasture crops, fertilised and unfertilised, B., 517.
- Grundmann, C. See Kuhn, R.
- Grundmann, W., dependence of inertia of thermometers on viscosity of liquid used, A., 247.
- Grundström, B., and Hulthén, E., fine structure and predissociation in the spectrum of calcium hydride, A., 992.
- Grundy, M., identification of colours on dyed paper, B., 502.
- Gruner, E., alkali aluminium silicates. VII. Behaviour of mineral zeolites towards liquid ammonia, A., 579. Sulphur monoxide, A., 795.
- Gruner, J. W., crystal structure of dickite, A., 45. Crystal structure of nacrite, A., 892. Magnesiosussexite, A., 928.
- Grunert, A., ageing of nickel chromium-nickel thermo-elements, B., 194. Piece-bleaching machinery, B., 862.
- Hessenbruch, W., and Ruf, K., resistance [chromium-iron] alloys for temperatures up to 1300°, B., 1012.
- Grunewald, C. F. See Deuel, H. J., jun.
- Grupe, H. L. See Brit. Thomson-Houston Co.
- Grusehka, F. See Kohn, K.
- Grusehka, T. See Kohn, K.
- Gruse, W. A. See Marley, S. P., and Martin, S. M., jun.
- Grut, E. See Dédek, J.
- Grynberg, M. Z., union of biocolloids. XX. Proteins and crystalloids, A., 903.
- See also Przylecki, S. J. von.
- Grynkrant, A., beaming and tanning of glazed kid, B., 117.
- Grzycki, S., relation between creatinine and lactic acid in horse's blood in tetany, A., 181. Enzymes of lactose fermenters, A., 1204. Transformation of acetoacetaldehyde by yeast, A., 1204.
- See also Auhagen, F., and Moraczewski, W. von.
- Gstirner, F., preparation of fluid extract of ipecacuanha, B., 44. Preparation and evaluation of cinchona fluid extract and cinchona tincture, and alkaloid determination in cinchona bark, B., 732.
- Guaisnet-Pilaud, (Mme.) M., phenyl-methylethylbetaines and geometrical stereoisomerism of organic quinevalent nitrogen compounds, A., 387. Stereoisomeric phenylmethylethyl and phenylmethylethylpropyl betaines, A., 948. Crystallography of the hydrates of phenylmethylethyl and phenylmethylethylpropyl betaine, A., 1004.
- Guardian Metals Co. See Coles, H. L.
- Guareschi, P., electrolysis of zinc sulphate solutions, B., 751.
- Guastalla, G. See Giua, M.
- Guastalla, J., equation of state of unimolecular films, A., 668. Comparison of equation of state of unimolecular films with experiment, A., 900.
- Guba, E. F., carbon disulphide emulsion for control of the root-knot nematode, B., 440. Control of *Alternaria dianthi* causing a serious disease of the carnation, B., 566.
- Gubarev, A., and Goryunova, E., topography of skins from the wolf fish and cod, B., 438.
- Gubarev, E., and Bystrenin, A., reaction of formaldehyde with glycine, A., 55.
- and Sergejeva, E., colorimetric determination of peptones in nutrient media, A., 97.
- Gubelmann, I., and Tinker, J. M., isolation of 1:2- and 2:3-diaminoanthraquinone sulphates, (P.), B., 183.
- See also Du Pont de Nemours & Co., E. I., and Weiland, H. J.
- Gubkin, S. I. See under Goubkin, S. I.
- Gucker, F. T., jun., compressibility of solutions. I. Apparent molal compressibility of strong electrolytes, A., 901.
- and Schminke, K. H., heat capacity and related thermodynamic properties of aqueous solutions. II. Lithium and sodium hydroxides at 25°, A., 466.
- Guében, G., mesothorium II; clement 87, A., 762.
- and Hermans, L., absorption effects of  $\gamma$ -rays, A., 762.
- Guedel, A. E. See Leake, C. D.
- Guénault, E. M., and Wheeler, R. V., propagation of flame in electric fields. II. Effects of transverse fields, A., 30.
- Günther, E. See Helferich, B.
- Günther, F., Vierling, K., Pungs, W., and Winthrop Chem. Co., disinfectant and preserving agent, (P.), B., 126.
- Günther, G. See Euler, H. von.
- Günther, P., chemical action of Röntgen rays, A., 1127.
- and Tittel, H., formation of silver in the photographic layer under the influence of X-rays, A., 1019.
- Günther, P. L. See Flint, E., and Paneth, F.
- Günther-Schulze, A., and Betz, H., intensity of spectral lines in the glow discharge of "mottled" hydrogen, A., 759. Abnormal increase in intensity of the mercury triplet 5461, 4358, 4057, in highly dried hydrogen and other gases, A., 992. Positive column in the Hittorf dark space, A., 992.
- and Keller, F., spectral light zones in front of glow discharge cathodes, A., 108. Glow discharge in highly dried molecular gases, A., 547. Anode glow discharge, A., 547. "Variegated" hydrogen, A., 578.
- and Mohr, O., distribution of silver and sodium between glass and nitrate or bromide melts at equilibrium, A., 221.
- Guerbet, A., determination of iodine by the Carius method, A., 798. Determination of iodine liberated from iodides by nitrous acid, A., 1132. Cause of error in the determination of iodine in organic substances poor in carbon by fusion with potassium hydroxide, A., 1179.
- Guerdin, M., chromium [electro-]deposit, (P.), B., 25.
- Guérin, P., hydrocyanic acid in *Glyceria aquatica*, Wahlb. (*G. spectabilis*, M. and K.), A., 105.
- Guerini, B., bronzing of articles and parts made of iron, steel, and their alloys, (P.), B., 68.
- Guéron, J., spontaneous change in aqueous solutions of stannic chloride, A., 910.
- Gürsching, M., effect of colloidal tricalcium phosphate on calcium and phosphorus metabolism of the organism, A., 529.
- Guertler, W., affinity and cutting [of metals], B., 64.
- and Bergmann, A., ternary system aluminium-antimony-magnesium, A., 670. Ternary system silver-copper-nickel, A., 771.
- and Electric Smelting & Aluminum Co., recovering alumina from silicious materials containing it, (P.), B., 464. Recovering alumina from coal and its ashes, (P.), B., 579. Making Portland cement from coal ashes, (P.), B., 579.
- Guest, G. M., and Andrus, W. De W., blood in high intestinal obstruction. I. Distribution of phosphorus and intracellular changes, A., 86.
- and Warkany, J., overdosage of irradiated ergosterol in rabbits; changes in distribution of phosphorus in blood-cells and plasma, A., 645.
- See also Andrus, W. De W.
- Guggenheim, E. A., and Adam, N. K., thermodynamics of adsorption at the surface of solutions, A., 221.
- See also Donnan, F. G.
- Guggenheim Bros. See Gleason, G. H.
- Guglielmelli, L., and Franco, M. R., action of bromine on 2-nitrofluorene, A., 401.
- Guha, B. C., vitamins-B<sub>1</sub> and -B<sub>2</sub>, A., 756.
- and Chakravarti, P. N., vitamin content of the Indian mango, A., 1211. Photochemical activation of adenine, A., 1213.
- See also Chakravarti, P. N., and Krishnan, K. S.
- Guha, P. C. See Jannah, S. L., Majumdar, D. N., Mayuranathan, P. S., Patel, P. P., and Rao, A.
- Guha, S. K., dyes derived from acenaphthenequinone. III. Azines and indigoid vat dyes, A., 167.
- Gui, H. L., potato scab-gnat (*Pnyzia scabiei*, Hopkins), B., 805.
- Guichard, at. wt. of iodine, A., 550.
- Clausmann, Billon, P., and Lanthony, hydrogen content and hardness of electrolytic chromium, B., 710.
- Guichard, F., and Aubert, C., decolorisation of palm oils, B., 877.
- Guichard, P., cracking hydrocarbon oils, (P.), B., 614.
- Guilbert, F., density [of beet juice] and maturity, B., 567.
- Guilbert, J. See Cluquet, R.
- Guild, J., reversal of current in rectifier photo-cells, A., 338.
- Guillaume, A., and Adnot, (Mme.) J., variations in citric acid and sugar contents of black currants during ripening, B., 409.
- Guillaume, C. E., invar, B., 509.
- Guillaume, J., cane-sugar boiling, B., 728.
- Guillaumie, M. See Gayet, R.
- Guillaumin, C. O. See Marejkowsky, B. K.
- Guillemet, R., micro-determination of copper and its application to blood, haemocyanin, and animal tissues, A., 293. Copper content of liver and spleen in the dog; effect of bleeding and of ingestion of copper, A., 297. Use of sintered Jena glass filters in gravimetric microanalysis; application to gravimetric determination of sulphur as benzidine sulphate and of carbamide as dioxanthylcarbamide, A., 367.

- Guillemet, R., electrical heating equipment in Pregl's method of microanalysis: (a) combustion furnace, (b) bomb for micro-Liebig [determination], A., 368. Apparatus for micro-determination of ethoxyl and methoxyl groups, and of glycerol, A., 373.
- and Schell, C., rapid determination of ash in organic substances; application to grain and coal, B., 362. Nature and distribution of sulphur in maize; correlation between the sulphur: nitrogen ratio in maize and the baking value of flour, B., 569.
- Guillemonat, R. See Lespieau, R.
- Guillet, L., and Ballay, M., special cast irons, B., 870.
- Galibourg, J., and Ballay, M., martensite hardening and annealing of cast iron, B., 149.
- Petit, A., and Cournot, J., silver alloys, B., 393.
- Guilliermond, A., and Gautheret, R., microchemical characteristics of oxylavone compounds; their localisation in vacuoles, A., 329.
- Guillot, J. See Vizern.
- Guillot, M. See Fournier, G.
- Guillot-Allègre, (Mme.) S. See Delaby, R.
- Guinier, A. See Bruhat, G.
- Guinot, H. M. See Usines de Melle.
- Guintin, (Mlle.) M., e.m.f. and temperature coefficient of cell  $\text{Cu}|\text{CuSO}_4|\text{Hg}_2\text{SO}_4|\text{Hg}$  at 25°, A., 354.
- Guisande, L. S., analytical scheme for the toxicological investigation of metals, including thallium, uranium, and vanadium, A., 923.
- Guiteras, A., action of ozono on stigmasterol, A., 271. Ergotetraenes, A., 495.
- Guiteras, J. See García Banús, A.
- Guiton, L. See Portevin, A.
- Guitonneau, G., and Deguy, C., heat-resistant organisms in vegetable preserves, B., 731.
- Gukhman, L. A., preparing high-viscosity cylinder oils from refined bottom oils, B., 691. Preparing bright stocks and automobile oils from Baku crude oils, B., 692.
- Gulati, K. C., Seth, S. R., and Venkataraman, K., antiseptics and anthelmintics. I. 1-Alkyl- $\beta$ -naphthols, A., 604.
- and Venkataraman, K., dye of *Acacia* wood, A., 719, 832. Chromone group. IX. Synthesis of 5:7:4'-trihydroxy-3':5'-dimethoxyflavone, believed to be identical with tricin, A., 1055.
- Gulbransen, R. See Ashley, J. N., and Browning, C. H.
- Guler, K., light-metal rivets, B., 1014.
- Gulevitch, V., muscle extractives. XXXIV. Oxalylmethylguanidine (creatone) as a constituent of muscle tissue, A., 735.
- Gulf Pipe Line Co. of Oklahoma. See Hunter, J. N.
- Gulf Refining Co. See Gill, S.
- Gulf Refining Co., and Ayres, E. E., making motor fuel by cracking oils, (P.), B., 340. Gum-inhibited motor fuels, (P.), B., 695, 996.
- Ayres, E. E., and Smith, H. G., production of lubricating oils, kerosene, and other improved hydrocarbons from petroleum stocks by treatment with aluminium chloride, (P.), B., 1045.
- See also Houghton, A. M., McAfee, A. McD., Smith, Hirschel Gaston, and Souther, B. L.
- Gulick, M. See Deuel, H. J., jun.
- Gulinov, L. G. See Budnikov, P. P.
- Gulinov, V. G., nitro-dye from aminophenolsulphonic acid and chlorodinitrobenzene, A., 60. Preparation of  $\alpha$ -naphthylamine-2:4-disulphonic acid, B., 216. New nitro-dye from H-acid and chlorodinitrobenzene, B., 221. Nitro-dye from aminosulphonic acid, B., 221. Nitro-dyes from  $\beta$ -naphthylaminesulphonic acids and dichloronitrobenzene, B., 221. Nitro-dyes from  $\alpha$ -naphthylaminesulphonic acids and dichloronitrobenzene, B., 221. Preparation of crystal-violet from chloropierin and dimethylaniline, B., 221. Black azo-dye from  $\alpha$ -naphthylamine-2:4-disulphonic acid, B., 221. Black monoazo-wool dye, B., 221. Preparation of 1-nitroso- $\beta$ -naphthol-3-carboxylic acid, B., 581. Preparation of olive and green sulphur dyes related to Italian green from copper and aluminium nitrosophenoxides, B., 582. Nitro-dye from benzidine and chlorodinitrobenzene, B., 582. Nitro-dye from 2-amino-8-naphthol-6-sulphonic acid and chlorodinitrobenzene, B., 582.
- and Bunitski, V. L., nitro-dye from *m*-phenylenediaminesulphonic acid and chlorodinitrobenzene, A., 59.
- and Danilevskaja, L. V., nitro-dye from naphthionic acid and chlorodinitrobenzene, B., 582. Nitro-dyes from diaminophenyl- $\beta$ -naphthylaminesulphonic acids, B., 583. Nitro-dye from diaminophenylhydroxynaphthylaminesulphonic acid and dinitrochlorobenzene, B., 583.
- Gulland, J. M., assaying posterior pituitary extracts for oxytocic activity, A., 1086. Oxytocic hormone of posterior lobe of pituitary gland. II. Action of nitrous and nitric acids, A., 1086.
- and Macrae, T. F., action of proteolytic enzymes on oxytocic principle of pituitary gland, A., 539. Constitution of purine nucleosides, A., 838. Oxytocic hormone of posterior lobe of pituitary gland. III. Action of preparations of plant proteolytic enzymes. IV. Action of animal proteolytic enzymes: nature of the hormone, A., 1086, 1211.
- Gullander, N. H., and Clementson, C. & S., engine fuel, (P.), B., 775.
- Gullans, O., procedure for making odour determinations [in water], B., 846.
- Gumiński, K., thermodynamic consideration of the system perfect electrode-dilute solution, A., 909.
- Gundel, M., and Seitz, L., chemotherapy of pneumococcus infections; quinine derivatives, A., 1083.
- Gundermann, E., juice purification with lime containing magnesia, B., 485. Colloids in beet diffusion juice, B., 841.
- Gunn, G., modern methods of wood preservation, B., 107.
- Gunn, J. W. C., and Epstein, D., comparison of the action of sapotoxin, strophanthin, and snake-venoms on the heart, A., 977.
- Gunn, K. C. See Neal, D. C.
- Gunther, L. See Greenberg, D. M.
- Gunther, P. L. See Paneth, F.
- Guppy, W. D., volumetric determination of free sulphur [in rubber]. II., B., 801.
- Gupta, K., and Gupta, R. S., relative merits of high- and low-silage feeding to cows in milk, A., 857.
- Gupta, R. S. See Gupta, K.
- Gurchot, C. See Bancroft, W. D.
- Gurd, G. W. See Grieve, A. D.
- Gurevich, M. See Sokolov, V.
- Gurevitch, H. See Orekhov, A.
- Gurevitch, N., and Zilberman, D., treating fish skins with vegetable and mineral tanning substances, B., 438.
- Gurevitch, S. M. See Teletov, I. S.
- Gurevitch, V. G., and Krakovskaja, R., determination of sulphur dioxide in sulphur-treated foodstuffs, B., 410.
- and Vendt, V. P., specific gravity of powdered substances, and its determination with a new type of volu-meter, A., 249.
- Gurin, C. Z. See Kohmin, E. F.
- Gurney, F. J. See Bonner, W. D.
- Gurney, H. C., Feulgen's reaction as a critical stain for wheat cytology, A., 1342.
- See also Richardson, A. E. V.
- Gurney, R. W., internal photo-electric absorption in halide crystals, A., 887.
- Gurovich, Y. See Nazarevich, S.
- Gurr, W., Buchner filters with heating jackets, A., 690.
- Gurvich, S. See under Gurvitsch.
- Gurvitsch, A., mitogenetic radiation of nerve, A., 861. [Yeast as a detector of mitogenetic radiation], A., 1201.
- Gurvitsch, V. L., and Margolina, R. L., distilled bright stocks from lubricating oil crude oil, B., 691. Preparation of cylinder oils from lubricating oil bottom oils, B., 692.
- See also Kaminer, B. B.
- Guskov, V. A., relationship between specific gravity and ash content of hard coal, B., 450.
- Guseva, A. R. See Schorigin, P. P.
- Gusseva, K. A. See Rutovski, B. N.
- Gustafson, C. B., acid and iodine values of oil from soft winter wheat, B., 155.
- and Parfitt, E. H., effect of numbers of bacteria on development of rancidity in soft wheat flour, B., 601.
- Gustafson, F. See Myers, C. N.
- Gustafson, H. See Behrman, A. S.
- Gustafson, E. G. T., metal [iron, nickel, or cobalt, or alloys thereof] sponge, (P.), B., 195.
- Gustavson, K. H., tanning processes in the light of the "zwitterion" conception of proteins, B., 437.
- Gustavson, R. G. See D'Amour, F. E.
- Gnstus, E. L., and Stevens, P. G., acid iodides. I. Preparation of halogen-substituted aliphatic acid iodides: atomic refractivity of iodine. II. Cleavage of aliphatic ethers by acid iodides, A., 257.
- Guth, E., and Peierls, R., applications of the Fermi-Thomas model to positive ions, A., 203.
- Guthmann, H., Gentzsch, Goebel, and Grützmaier, metabolism after oral administration of glucose to non-pregnant, pregnant, and carcinomatous women, A., 416.
- and Grass, H., arsenic content of the blood of women; influence of menstrual cycle, pregnancy, and carcinoma, A., 416.

- Guthrie, A., and Sastry, M. S., effect of various additions to marine salt for use as a cure for hides and skins. I. and II., B., 320, 931.
- Guthrie, J. D., effect of chemical treatment of dormant potato tubers on conductivity of the tissue and on leaching of electrolytes from the tissue, A., 436. Changes in glutathione content of potato tubers treated with chemicals that break the rest period, B., 1028.
- Guthrie, J. M., and Philip, G. G., cleaning of screw stoppers, B., 47. Colorimetric determination of preservative value of hops, B., 520.
- Guthrie, R. G., and San Oil Co., combating oil and chemical fires, (P.), B., 616.
- Wilbor, O. J., and Peoples Gas By-Products Corp., apparatus for determining moisture content of gases, (P.), B., 898.
- Guthrie, (Miss) W. C. A., and Miller, (Miss) Christina C., determination of rock constituents by semi-micro-methods, A., 1132.
- Gutman, A. B., Sloan, L. W., Gutman, E. B., and Palmer, W. W., rôle of di-iodotyrosine in hyperthyroidism; comparison of the therapeutic effect of di-iodotyrosine with inorganic iodine, A., 1322.
- Gutman, E. B. See Gutman, A. B.
- Gutman, S. M., and Fedorov, P. F., rapid determination of phosphorus in tungsten steels, B., 23.
- and Monyakova, L. N., rapid determination of vanadium in steel and ferrovanadium, B., 23.
- Gutsell, R. S. See Bancroft, W. D.
- Gutstein, M., determination of  $pH$  in living yeast and bacterial cells, A., 427.  $pH$  value of bacteria, A., 1208. Gram-specificity of disinfection processes, B., 1087.
- Gutteridge, H. S., vitamin-A and -D studies with growing chicks; comparison of cod-liver oil and pilchard oil as sources of vitamin-A, A., 645.
- Guttmann, A., and Gille, F., significance in cement and fine structure of tricalcium silicate, B., 1057.
- Guttmann, R. See Ehrlich, F.
- Gutuiriya, V. S. See Dalin, M. A.
- Gutzeit, C. L. See Standard Oil Development Co.
- Gutzeit, G., and Duckert, R., aminoformates of copper and zinc, relatively stable internal complexes involving four linkings, A., 1105.
- Gysin, M., and Galopin, R., indirect chemical determination of minerals in a polished surface by "spotting," A., 1132.
- and Monnier, R., azo-derivatives of hydroxyquinoline in inorganic chemical analysis. I, II., and III., A., 479, 732. 5:7-Dibromo-3-hydroxyquinoline as specific reagent for vanadium, A., 479.
- Monnier, R., and Bachoukova-Brun, R., reagent for magnesium: 5-p-acetamidophenylazo-8-hydroxyquinoline, A., 1133.
- Gutzeit, R., relation between apparent atomic volumes and centres of co-ordination of insoluble internal complexes, A., 1103.
- Guyatt, B. L., Kay, H. D., and Branion, H. D., beryllium "rickets," A., 1323. See also Kay, H. D.
- Guyer, A., and Likiernik, A., decomposition of raw phosphates by nitric acid, B., 963.
- and Schütze, H., isothermal equilibrium  $\text{CaCO}_3 + \text{aq. NH}_4\text{NO}_3$ , A., 1120.
- Guzmán, J., fixed and variable electrical resistances of graphite, A., 1005.
- and Rancano, A., macro-electroanalysis of cobalt, zinc, cadmium, silver, and mercury, A., 1025.
- Gwozdz, B., mercury-reducing substances of normal urine, A., 1188.
- Gwyer, A. G. C. See Brit. Aluminium Co.
- György, E. von, and Veszelszky, L., effect of intravenous injection of hypertonic glucose, A., 746.
- György, P., and Kuhn, R., pigment in the cerebrospinal fluid of a child with tubercular meningitis, A., 854.
- Kuhn, R., and Wagner-Jauregg, T., vitamin-B<sub>2</sub>, A., 1090.
- See also Kuhn, R.
- Györki, J., sulphur content of Hungarian coals and peats, B., 372. Behaviour of sulphur in [Hungarian] coal on combustion, B., 372.
- Gypsum, Lime, & Alabastine, Canada, Ltd., heat-insulating material, (P.), B., 48. Calcination of gypsum, (P.), B., 588.
- Gyro Process Co. See Harnsberger, A. E., and Wagner, C. R.
- Gysin, M. See Gutzeit, G.
- Gysinck, T., use of antimony electrode in electrometric determination of  $pH$ , A., 1022.
- H.
- Haabestad, E. H., and Hydrol Chem. Co., tissue filler, (P.), B., 813. Treating [restoring colour to] artificial grass, (P.), B., 1053.
- Haag, H., and Kahlson, G., potential toxicity. II. Significance of polarity of concentration gradient in activity of a potential poison, A., 184.
- Haag, H. B., pharmacology of anabesine, A., 744. Bromine method for determination of alkaloids, B., 412.
- See also Hatcher, R. A.
- Haagen-Smit, A. J. See Kögl, F.
- Haake, J. W., and Henkel & Co. G.m.b.H., preventing formation of lumps or clods when dissolving starch which swells in cold state, (P.), B., 166.
- Haantjes, J. See Keesom, W. H.
- Haarmann, W., lactic acid from pyruvic acid, A., 93. Combined action of carbohydrates in production of lactic acid, A., 93. Lactic acid from methylglyoxal; influence of carbohydrates, A., 93. Production of lactic acid by tissues, A., 93. Degradation of glycogen and glucose in tissues, A., 94. Lactic acid from products of enzymic hydrolysis of glycogen, A., 94. Influence of bromoacetate on carbohydrate metabolism and lactic acid disappearance, A., 306. Comparative investigation of action of oxalate, fluoride, and bromoacetate in carbohydrate metabolism, A., 307.
- and Stratmann, F. W., influence of different concentrations of glucose on formation of lactic acid and on degradation of glycogen, A., 307. Degradation of xylose, tetraglucosan, and *D*-sorbitol by surviving tissues, A., 307.
- Haas, A. J., jun. See Dawsey, L. H.
- Haas, A. R. C., injurious effects of manganese and iron deficiencies on growth of citrus, A., 546. Walnut yellows in relation to ash composition, manganese, iron, and other ash constituents, A., 653.
- Haas, D., and Rodebush, W. H., rare earths. XXXIX. Transference numbers of the chlorides of neodymium, samarium, and gadolinium, A., 1009.
- Haas, Erwin. See Kubowitz, F., and Warburg, O.
- Haas, Eugen, high-output ultra-filters, (P.), B., 817.
- Haas, L. E. See Richardson, C. H.
- Haas, L. W., Renner, H. O., and Short Milling Co., J. R., improving and removing odour and flavour of legumes, (P.), B., 604.
- Haas, M., efficiency effect of X-ray *K*-fluorescence radiation for light elements, A., 332.
- Haas, O. See Fattinger, F.
- Haas, P., and Hill, T. G., metabolism of sea-weeds, A., 436.
- Haas, W. See Czech, A.
- Haase, C., volume changes [in alloys] by diffusion in relation to inverse segregation on rapid solidification, B., 66.
- Haase, E. See Abderhalden, E.
- Haase, G. See Müller, Erich.
- Haase, H., fastness of coal-tar dyes, B., 1048.
- Haase, L. See Van Dusen, C. A.
- Haase, L. W., mechanism of oxidation of copper and its alloys in liquids and their electrochemical behaviour, B., 24. Determination of [dissolved] oxygen [in water] in presence of sulphite, B., 94. Corrosion of copper; oxide protection in salt solutions, B., 510. Corrosion and residual current, B., 870. Action of cupriforous tap-water on aluminium, B., 1013.
- Haase, T. See Klumb, H.
- Habegger, H. See Habegger, H. E.
- Habegger, H. E., and Habegger, H., method of impregnation for preserving wood, (P.), B., 671.
- Haber, F., and Weiss, J., catalysis of hydrogen peroxide, A., 234.
- Haberland, G. See Slotta, K. H.
- Habs, H., intake of dissolved substances by bacteria. III., A., 191.
- Hachihama, Y., bagasse. II. Water-soluble matter, B., 647.
- and Hayashi, G., bagasse. I. Water-soluble matter, B., 647.
- Hachiya, T., and Nishimura, J., action of aromatic sulphur compounds on pathogenic fungi, A., 638.
- Hackel, J., and Urbaniski, T., starch nitrates. II. Starch nitrates from starches of different origin, A., 597.
- Hacker, J. W., and Lloyd, T. C., ammonium chloride from coke-oven gases, etc., (P.), B., 60.
- Hacker, W., measurement of migration velocity of gold micellar ions by observation of the moving boundary, A., 223. Measurement of migration velocity of colloid particles, A., 223. Kohlrausch-Weber theory of the moving boundary, A., 462.
- See also Wintgen, R.
- Hacking, R. A., recent developments in open-hearth furnace design, B., 95.
- Hackmann, J. T. See Wibaut, J. P.



- Hackspill, L., borates and boron, A., 1128.  
 Claude, D., Andres, L. E., and Rollet, P. A. A., potassium salts [for hydroxide] from [natural] potassium chloride, (P.), B., 865.  
 See also Dupuy, E.
- Haddock, L. A., changes in acid solutions of adrenalin, A., 1256.
- Haddock, N. H. See Imperial Chem. Industries.
- Haddon, C. L., gypsum, B., 145.
- Haddow, A. See Wiesner, B. P.
- Haden, R. J. See Shirer, J. W.
- Hadjigeorgis, E. See Achar, C.
- Hadjiloff, A., and Kreteff, T., examination of urinary ash and uric acid in Wood's light after incomplete ashing; detection of uric acid, A., 413. Examination of human and vertebrate animal urine in Wood's light, A., 413.
- Hadman, G., Thompson, B. W., and Hinshelwood, C. N., explosive oxidation of carbon monoxide at lower pressures, A., 30.  
 See also Hinshelwood, C. N.
- Hadnagy, Z., Bouillard, A., and Auby, A., waterproof abrasive articles [e.g., sand-paper or emery cloth], (P.), B., 788.
- Hadzidimitriu, S. See Franke, A.
- Häbel, H. See Heiduschka, A.
- Haack, A., and Spiltoir, J., manufacture of mixtures suitable for carburation or combustion from oils wholly or partly unfit for such uses, (P.), B., 377.
- Haacker, R. See Rupe, H.
- Haefner, R. See Grube, G.
- Haegole, R. W., pyrethrum in control of *Mineola scitulella*, Hulst, B., 165.
- Hägg, G., vacant positions in the iron lattice of pyrrhotite, A., 342. X-ray examination of crystals with long-wave radiation, A., 1105.  
 and Phragmen, G., deviation from the Bragg equation for the powder method, A., 1105.  
 and Sucksdorff, I., crystal structure of troilite and magnetic pyrites, A., 1235.  
 See also Kindström, A. L.
- Häglund, E., lignosulphonic acid and chemical mechanism of the sulphite [-pulp] cooking process, B., 584.  
 Acetic acid from pinewood, B., 997.  
 Digestion of [wood] pulp, B., 1050.  
 and Carlsson, G. E., sulphonation of lignin from pine wood. II., A., 505.  
 and Johansson, A.,  $\eta_{sp}$  in the liquid during sulphite-cellulose cooking, B., 13.  
 and Ljunggren, S., red wood of spruce. I. Composition, B., 698.  
 and Proffe, B., cellulose content and hydrolysis of various hemicelluloses of spruce wood, B., 698.  
 and Schollen-Borg, G., use of black liquor in sulphate-cellulose cooking, B., 584.
- Haehn, H. See Glauibitz, M.
- Haehnel, O., resistance of metals towards phenol and cresol vapours, B., 471.
- Hänel, S., detection and determination of aldehydes in spirits, B., 328.
- Haempel, O. See Glaser, D.
- Haenny, C., birefringence of cerium salts in aqueous and non-aqueous solution, A., 566.
- Haensel, W. See Braun, J. von.
- Härdtl, H., rotatable wooden burette holder as titration stand, A., 927.
- Härtel, F., unification of methods of investigation of cacao products, B., 1081.
- Härting, H. See Traube, W.
- Häussler, E. P., and Hoffmann-La Roche, Inc., sexual hormones, (P.), B., 445.
- Haeussler, H. See Schmalfuss, Hans.
- Haferkorn, M., and Lendle, L., action and rate of elimination of atropine and genatropine, A., 978.
- Hafstad, L. R., application of the FP-54 plotron to atomic disintegration studies, A., 996.  
 See also Tuve, M. A.
- Haft, G., determination of light yield in sodium spectrum, A., 439.
- Hagan, H. R., Hawaiian pineapple field-soil temperatures in relation to the nematode *Heterodera radicicola* (Greef), Müller, B., 934.  
 See also Godfrey, G. H.
- Hagan Co., G. J. See Talley, R. E.
- Hagelstein, F., pharmaceutical-technical parallels in photographic plates with special reference to constitution and significance of single substances included among developers, B., 813.
- Hageman, A. M. See Westinghouse Lamp Co.
- Hagemann, H., and Hiemanz, H., influence of strip thickness, annealing temperature, and insulating material on initial and maximum permeabilities of coiled strip cores of nickel-iron alloys, B., 1012.
- Hagen, H., and Sieverts, A., colour reaction between rhenium heptoxide and hydrogen peroxide; rhenium peroxide, A., 43. Electrical resistance of palladium wires charged with hydrogen. II. Up to 470° and 140 kg. per sq. cm., A., 893.  
 See also Sieverts, A.
- Hagen, O., extractors and condensers, A., 44.
- Hagene, P., humus in [hollow] pollarded willows, A., 590.
- Hagenguth, K., total analysis of unknown urinary substances, A., 413.
- Hager, F. D. See Rhodes, E. O.
- Hager, O. B. See Willaman, J. J.
- Hagert, W. See Fischer, Hans.
- Haggard, A. See Ling, A. W.
- Hagisawa, H. See Ishikawa, F.
- Hagiya, M. See Imai, H.
- Haglund, E., Sandberg, E., and Barthel, C., early abnormal fermentation of cheese, B., 936.
- Haglund, G., and Patentaktieb. Gröndal-Ramén, reducing contents of resins and fatty acids in cellulose produced by sulphite digestion, (P.), B., 663.
- Haglund, P., precision measurements of the L series of molybdenum and silver, A., 881.
- Haglund, T. R., chromium alloys [ferro-chromium] low in carbon, (P.), B., 68.  
 Refractory substances, (P.), B., 549.
- Hague, E. N. See Anglo-Persian Oil Co.
- Hahn, A., [anaerobic formation and disappearance of pyruvic acid in muscle], A., 1194.  
 and Dürr, M., preparation of lactacidogen and adenylic acid from muscle-juice, A., 624.  
 Fischbach, E., and Niemer, H., lactic acid dehydrogenase in yeast, A., 915.  
 Degradation of lactic acid by yeast enzymes, A., 1204.
- Hahn, D. A., and Litzinger, A., tyrosine-N-acetic acid; general method for preparing symmetrical and asymmetrical imino-dibasic acids, A., 166.
- Hahn, F., determination of traces of bromine in presence of great excess of chlorine, A., 920. Sensitive test for boric acid suitable for biochemical investigations, A., 1261.
- Hahn, F. L., time required for suitably arranged potentiometric titrations, A., 135. Determination of end-point in micro-titrations, A., 135. Colorimetry, A., 366. Bromine of blood, A., 965.  
 and Klockmann, R., utilisation of potentiometric titrations. X. Ampholytes, A., 129.
- Hahn, F. V. von, gum surfaces. III., A., 22. Is hydrotrophy a special property of organic salts? A., 348. Vitamins. VII. Vitamin-C content of unusual foodstuffs, A., 1340.  
 and Görbing, J., vitamins. VI. Effect of fertilisers on vitamin-C content of spinach, B., 884.
- Hahn, G. See Müller, Robert.
- Hahn, M., Strauss, W., and Kyriazidis, K. N., nephelometric method for determining milk fat, B., 122.
- Hahn, O., chemical elements and atomic types from the viewpoint of investigation of isotopes, A., 110. From the ponderable to the imponderable, A., 686.  
 and Meitner, (Frl.) L., origin of various kinds of lead, A., 550.
- Hahn, P. F., liver injury and blood-lactic acid, A., 853.
- Hahn, R. See Fraenkel, W.
- Hahnel, G. See Starkenstein, E.
- Haidukov, N. See Vilnyanski, Y. E.
- Haigh, B. P., and Jones, Brinley, interpretation of tensile test (with reference to lead alloys), B., 350.
- Haigh, L. D., and Hall, A. R., recovery of platinum in potash determinations, A., 363.
- Hailes, H. R., thermal decomposition of lead styphnate, A., 470.  
 See also Garner, W. E.
- Hailwood, A. J. See Imperial Chem. Industries.
- Hailwood, E. A., electric insulating material or other substances which need to be very hard and with insulating properties, (P.), B., 875.
- Haines, G. H., and Grain Machinery Co., mixing apparatus, (P.), B., 129.
- Haines, R. B., influence of carbon dioxide on rate of multiplication of bacteria, as judged by viable counts, A., 317. Effect of medium on production of bacterial gelatinase, A., 638.
- Haines, R. T. M., and Drummond, J. C., properties of halibut-liver oil, B., 974.
- Haines, W. B., existence of two equilibrium series in soil-capillarity phenomena, B., 241.
- Haines, W. E., effect of seed inoculation and of a nitrogen fertiliser on survival of red clover plants growing in soil previously treated with sodium chlorate, B., 564.
- Haissinsky, M., electrochemistry of polonium, A., 128, 355. Separation of elements 88 (Ra), 89 (Ac), and 90 (Th) by means of organic solvents, A., 794. Method of preparation of radium-E, A., 1021.
- Haitinger, M., [fluorescence microscope for strong illumination], A., 139.  
 See also Haschek, E.
- Hajda, L., and Popofe, S., preparation and etching of galvanised wire for metallographic examination, B., 969.

- Hajek, T., colour of beer, B., 935.  
Hajnal-Kónyi, K. See Kleinlogel, H.  
Hakki, A. C. See Jung, Adolphe.  
Hakki, M. See Rosenheim, A.  
Halama, M., technique of viscose, [cellulose] acetate, and gelatin films and similar structures, B., 300. Weather-proof transparent films, B., 824.  
Halban, H. von, and Kortüm, G., hydrogen effect, A., 677.  
Halberstadt, J., diffusion of silver and copper in glass, A., 455.  
See also Schwarz, R.  
Halberstadt, S., 8-hydroxyquinoline for determination of tungsten, A., 366.  
Halcro-Wardlaw, H. S. See Daggs, R. G.  
Hald, P. M. See Peters, J. P.  
Haldane, J. H., dryage and deterioration of [sugar]-cane varieties in Upper India, B., 486.  
Haldane, J. S., gases occurring underground, B., 133.  
and Makgill, R. H., alkaline pyrogallate solution in gas analysis, B., 737.  
Halden, W., systematisation [definition] of the lipins, A., 1275.  
Bilger, F., and Kunze, R., metabolism of fat and lipin in yeast, A., 1205.  
Haldin-Davis, H., prevention of industrial diseases of the skin, B., 686.  
Hale, F. C. See Brit. Celanese.  
Hale, G. C., delay powder, (P.), B., 685.  
Hale, H. P., and Hardy, (Sir) W. B., f.p. of yolk and white of egg, A., 523.  
Hale, W. J., proposal to adopt the stem "xen" of A. W. Hofmann's xenyl as basis for nomenclature of diphenyl and its derivatives, A., 56.  
Britton, E. C., and Dow Chem. Co., phenolic compounds, (P.), B., 218.  
and Dow Chem. Co., thiohydroxy-organic compounds [thiophenols], (P.), B., 218.  
Hale, W. S. See Balls, A. K.  
Halferdahl, A. C. See Carrie, G. M.  
Halford, J. O., relative strength of benzoic and salicylic acids in alcohol-water solutions [at 25°], A., 780.  
and Anderson, L. C., photochemical production of triphenylmethyl, A., 1041.  
Halkett, R., Fells, H. A., and Brown, J., gaseous mixtures and their application for use in reheating processes of steel and alloys, (P.), B., 951.  
Hall, A. R. See Haigh, L. D.  
Hall, C. C., hydrogenation-cracking of naphthalene, B., 379.  
Hall, C. S. See Imperial Chem. Industries.  
Hall, E. H., superconductivity and the Hall effect, A., 893.  
Hall, E. J., and Metals Disintegrating Co., material for clearing drain pipes, etc., (P.), B., 271.  
Hall, E. M., and Mackay, E. M., relation between mitochondria and glucose-glycogen equilibrium in the liver, A., 974.  
Hall, F. P., and Insley, H., compilation of phase-rule diagrams of interest to the ceramist and silicate technologist, B., 1009.  
Hall, F. W., Jenkins, V. N., and Texas Co., treating hydrocarbon oils, (P.), B., 378.  
and Texas Co., continuous filtration [for dewaxing of hydrocarbon oils], (P.), B., 580.  
Hall, G. E. See King, E. J.  
Hall, G. F., and Keightley, W. M., detection and determination of aloes in post-mortem cases, A., 119S.  
Hall, H. C., hardening of aluminium alloys, (P.), B., 71. Treatment of non-ferrous [aluminium] alloys to protect them against corrosion, (P.), B., 874.  
and Hutchinson, C. R. M., heat-treatment of aluminium alloys, (P.), B., 474.  
Hall, H. H., James, L. H., and Stuart, L. S., yeast-growth stimulants in white sugars, B., 983.  
Hall, H. I., and Plant, S. G. P., 1:2:3:4-tetrahydroxanthone, A., 511.  
Hall, I. C., use of Kohlrausch sugar flasks in determination of biochemical oxygen demand, B., 254.  
Hall, J. Alfred, a factor in rosin coloration, B., 30.  
Hall, John Ainger, design for precision platinum resistance thermometers, A., 246.  
Hall, L. A., bleaching packing-house greases, B., 398.  
Mortell, E. C., and Mortell Co., J. W., asphalt emulsion, (P.), B., 775.  
Hall, N. F., strength of semicarbazide, A., 26.  
and Voge, H. H., electrical conductivities of mixtures of sulphuric acid, acetic acid, and water [at 25°], A., 230.  
See also Earl, J. C.  
Hall, P. E., coking of Transvaal coals and blends, B., 736.  
Hall, W. C. See Brody, S.  
Hall, W. T., and Badger & Sons Co., E. B., method of distilling, (P.), B., 689.  
Halla, F., and Kutzelnigg, A., zinc phosphate cement, A., 1128.  
Nowotny, H., and Tompa, H., X-ray studies on the system (Zn,Cd)-Sb. II, A., 1110.  
Tompa, H., and Zimmermann, L., thallous oxide, A., 1106.  
and Zimmermann, L., structure of lead formate, A., 13.  
See also Egartner, J.  
Halle, H. J., and Universal Oil Products Co., treating [cracking of] hydrocarbons, (P.), B., 100. Treatment of hydrocarbons, (P.), B., 854.  
Haller, H. L., rotenone. XXIV. Synthesis of tetrahydrotribanol. XXV. Synthesis of tetrahydrotribanol and tetrahydrotriba acid, A., 163, 955.  
and Schaffer, P. S., rotenone. XXVII. Hydrogenation of rotenone. XXVIII. Preparation of dihydrorotenone, A., 1055, 1216.  
Haller, R., hydrolysis of acetate silk, B., 102. Histological structure of cotton fibres, B., 541.  
Hallermann, A., modern chips, B., 568.  
Halley, L. F., and Marvel, G. S., rearrangements of poly-ines. III. Synthesis of 1:1'-bis-(1:3-diphenylindenyl), A., 57.  
Halliday, E. G. See Noble, I. T.  
Halliday, N., effect of heat at varying pH values on vitamin-B<sub>1</sub> in protein-free milk, A., 99.  
See also Sherman, H. C.  
Hallimond, A. F. [with Herroun, E. F.], magnetic properties of igneous rocks, A., 928.  
Halliwell, G. P. See Westinghouse Electric & Manufg. Co.  
Hallonquist, E. G., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XLIV. Synthesis of isomeric dicyclic acetal ethers, A., 487.  
Halloran, R. A., Chappell, M. L., Osmer, J. H., and Standard Oil Co. of California, low-b.p. oils or motor fuel from hydrocarbon oils by the employment of metallic halides, (P.), B., 615.  
Chappell, M. L., and Standard Oil Co. of California, lubricating oil, (P.), B., 903.  
Shiffler, W. H., and Standard Oil Co. of California, forming coke from mineral hydrocarbons, (P.), B., 420.  
Halls, E. E., synthetic resin laminated sheet products. I. Manufacture and uses. II. Electrical applications and properties. III. Mechanical properties, machining tests, and uses, B., 78. Waxes from chlorination of naphthalene, B., 259. Selection of electrode coatings for iron and steel components, B., 591.  
Halm, L. See Cournot, J.  
Halowax Corporation. See Hanson, E. R.  
Halpern, R. See Kleiner, J. S.  
Halstead, R. T. See Pratt, W. B.  
Halstensen, H., determination of fat in cheese, B., 810.  
Halter, K., ammonia formation in mammalian nerve, A., 419.  
See also Rosenbaum, H.  
Halton, P. See Fisher, E. A.  
Halverson, J. O., and Smith, F. H., determination of gossypol in cottonseed meal, B., 434. Relation of moisture to extraction of gossypol from cottonseed meal with ether, B., 1082.  
See also Smith, F. H.  
Halvorsen, B. F., treatment of sulphurous iron ores [pyrites], (P.), B., 153.  
Halvorson, H. A. See Cade, A. R., and Lachat, L. L.  
Ham, A. W., mechanism of calcification in the heart and aorta in hypervitaminosis-D, A., 326.  
Hamada, C., condensation of phenols with benzotrichloride in presence of sodium hydroxide, A., 827.  
Hamada, H., continuous spectrum of sodium, A., 1, 331. Characteristics of metallic spectra excited by active nitrogen, A., 331. Spectra emitted during early stages of a condensed discharge through nitrogen at low pressure, A., 332. Continuous spectrum of sodium, A., 655.  
See also Okubo, J.  
Hamada, M., testing of cement with special reference to strength of concrete, B., 628.  
Hamann, G. See Rupp, E.  
Hamann, K. See Albers, H., and Schmitzdumont, O.  
Hambleton, A., Soxhlet type of extraction apparatus for operation at low temperatures under reduced pressure, A., 139. Non-specific complement fixation reaction due to ion antagonism, A., 429. Mechanism of complement fixation, A., 429. Examination of immune-serum lipins for complement-fixing antibodies of tuberculosis, A., 984.  
Hamblin, W. G., grinding mills, (P.), B., 3.  
Hamby, A. N. See Dann, A. T., and Davies, W.  
Hamburg, H. See Feigl, F.  
Hamburger, L., complete growth functions, particularly photographic, A., 350. Germ and pro-germ formation in relation to developable centres of exposed homogeneous silver bromide grain, A., 682. Mechanism of cutting and polishing [of metals and glass], B., 550.  
See also Reinders, W.

- Hamburger, R., linoleum, (P.), B., 357.
- Hamence, J. H., separation and determination of traces of lead in presence of small amounts of bismuth, A., 923.
- Hamer, (Miss) F. M., determination of iodine in organic compounds containing selenium, A., 292.  
See also Brooker, L. G. S., Fisher, (Miss) N. I., and Ilford, Ltd.
- Hamer, P. L. See Wise, L. E.
- Hamer, W. J. See Harned, H. S.
- Hamilton, A., formation of phosgene in thermal decomposition of carbon tetrachloride, A., 683.
- Hamilton, C. C., greenhouse and field tests for control of gladiolus thrips, B., 935.
- Hamilton, C. S., and Parke, Davis & Co., *p*-aminoamide derivative of arsonic acid [ $\beta$ -phenylaminopropionamide-arsonic acids], (P.), B., 251.
- and King, W. N., action of chlorine on *p*-tolylarsinic acid under the influence of ultra-violet light and its chlorination with hypochlorous acid, A., 618.  
See also Parmelee, H. M.
- Hamilton, E. H. See Thompson, J. G.
- Hamilton, J. A., [grid with spines for] electric accumulators, (P.), B., 836.
- Hamilton, R. T., and Butler, J. A. V., behaviour of electrolytes in mixed solvents. IV. Free energy of zinc chloride in water-alcohol solutions, A., 26.
- Hamilton, S. N. See Shutt, F. T.
- Hamilton, T. S. See Mitchell, H. H.
- Hamilton, W. F. See Krueger, R. H.
- Hamilton, W. M. See Imperial Chem. Industries.
- Hamilton, Beauchamp, & Woodworth. See Woodworth, S. E.
- Hamlin, M. L., and Barrett Co., cupola furnace and method of operation [for melting bronze], (P.), B., 631. Melting of metals in cupola furnaces [by gaseous fuel], (P.), B., 711.
- Hamlink, L. C., and Gas Machinery Co., coking gas oven, (P.), B., 692.
- Hamm, C. S., and Mead Paperboard Corp., paper manufacture, (P.), B., 103.
- Hammarsten, E., Agren, G., Hammarsten, H., and Wilander, O., purification of secretin. V., A., 1208.
- Jorpes, E., and Agren, G., purification of secretin. IV., A., 1208.
- Hammarsten, H. See Hammarsten, E.
- Hammel, F., manganous sulphate, A., 1115.
- Hammer, A. J., chemistry in flour industry, B., 329. Furfuraldehyde, an industrial raw material and solvent, B., 776.
- Hammer, B. W. See Michaelian, M. B., and Olson, H. C.
- Hammerly, F. V., Hammerly, G. A., and Abbott, C. B., apparatus for mixing fluids [in sewage purification], (P.), B., 446.
- Hammerley, G. A. See Hammerley, F. V.
- Hammerschmidt, F. See Schenck, R.
- Hammett, D. W. See Hammett, F. S.
- Hammett, F. S., growth retardation by partly oxidised sulphhydryl of cysteine, A., 631.
- and Hammett, D. W., influence of thiol on formation of aberrant disorganised overgrowths in the regenerating right chela of the hermit crab (*Pagurus longicarpus*), A., 419.
- Hammett, L. P., mechanism of hydrogen overvoltage and electrolytic oxidation of hydrogen, A., 786.
- Hammett, L. P., and Deyrup, A. J., simple basic indicators. II. Solutions in formic acid, A., 26. Properties of electrolytes in the solvent sulphuric acid, A., 675.
- and Loreh, A. B., catalytic properties of bright platinum and iridium deposits in the activation of hydrogen, A., 234.
- and Pfluger, H. L., rate of addition of methyl esters to trimethylamine, A., 1251.  
See also Chapman, R. P., and Walden, G. H., *jun*.
- Hammiel, D. L., Edwards, W. A. M., Illingworth, W. S., and Snell, F. R., aromatic bisnitroso-compounds of the type  $R'N_2O_2R''$ , A., 782.
- and Hanson, T. K., solid-liquid equilibria in system nitrobenzene-*m*-dinobenzene, A., 782.
- and Howard, J., two liquid phases of minimum density in the system carbon disulphide-dichloroethylene dichloride, A., 120.
- Hammond, E. S. See Schlesinger, H. I.
- Hammond, G. F. See Tapie, J. F.
- Hammond, J., meat, B., 762.
- Hammond, J. A., and California Cap Co., explosive, (P.), B., 573.
- Hammond, R. A. F. See Macnaughtan, D. J.
- Hammond, W. A., drying agent, (P.), B., 768.
- and Withrow, J. R., soluble anhydrite as a desiccating agent. I. Preparation and general characteristics. II. Drying of organic liquids, A., 683, 1266.
- Hamor, W. A., Cox, G. J., Metschl, J., and Van Brunt, J. W., use of sucrose in sand-lime brick, B., 428.
- Hampe, R. See Schreder, K.
- Hampel, C. W. See Ring, C. C.
- Hampel, J., injury to vegetation by superphosphate factories, B., 1025.
- Hampson, G. C., and Sutton, L. E., determination of the angles between covalencies from measurements of electric dipole moments, A., 766.
- Hampton, W. B., Farrington, B. B., and Standard Oil Co. of California, petroleum product and wood preservation, (P.), B., 615.
- Hampton, W. C., and Crawford McGregor & Canby Co., coating of articles with liquid pyroxylin, etc., (P.), B., 1019.
- Hampton, W. F., and Mennie, J. H., specific heat of Monel metal between  $-183^\circ$  and  $25^\circ$ , A., 217.
- Hampton, W. M., opal glass, B., 346.
- Hanak, A., precision distillation apparatus, A., 139. Receiver for fractional distillation in vacuum, A., 367. Determination of menthol in brandy, B., 121.
- Hanak, M. See Karczag, L.
- Hanauer, A. M., and Lava Crucible Co. of Pittsburgh, moulding of graphite refractory compositions, (P.), B., 867.
- Hauawalt, J. D. See Morell, L. G.
- Hance, F. E., report on [soil] chemistry, B., 161.
- Hance, R. T., iron hæmatoxylin [stability of staining solutions], A., 846.
- Hancox, R. R., reflexion of metallic atoms from alkali halide crystals, A., 203.
- Hand, C. N., and Elko Chem. Co., anhydrous sodium sulphite, (P.), B., 385.
- Hand, D. B., peroxidase, A., 1201.
- Handel, J. van den. See Gorter, C. J.
- Haudford, C. See Howell, O. R.
- Handovsky, H., treatment of anaemia with copper, quantitative comparison of anti-anaemic drugs, and a new copper-iron-protein preparation, A., 180. X-Ray investigations on stimulated and paralysed nervo substance, A., 313.
- and Cotzhausen, D. von, action of minute amounts of copper on the mammalian organism. III. Phenylhydrazino anaemia in dogs, A., 1328.
- Cotzhausen, D. von, and Schallehn, R., action of minute amounts of copper on the mammalian organism. IV. Effect of minute concentrations of heavy metal on the degradation of glycogen *in vitro*, A., 1200.
- Hands, H., plastic compositions, (P.), B., 31.
- Handy, G. W. See Porter, J. M.
- Handy, J. O. See Betz, C. B.
- Hanel, R. See Müller, Rudolf, and Waehler, M.
- Hanemann, H., Hofmann, U., and Wiester, H. J., structural changes in steel during hardening and tempering, B., 65.
- Schrader, Angelica, and Tangerding, W., veining constituent in ferrite, B., 709.
- Haner, C., Gamper, O., and Publicker, Inc., preparation of butyl alcohol-acetone seed mashers, (P.), B., 89. Production of butyl alcohol and acetone and ethyl alcohol [by fermentation], (P.), B., 729.
- and Publicker, Inc., esters [*e.g.*, othyl acetate], (P.), B., 217.
- Hanle, W., circular polarisation of Raman lines. II., A., 114. Inversion of circular polarisation by thallium fluorescence, A., 1096. Absence of inertia in the diamagnetic Faraday effect, A., 1104.
- and Larché, K., light emission caused by electronic, ionic, and atomic collision, A., 5. Resonance function for collisions of the second kind, A., 1220.  
See also Christoph, W.
- Hanley, W. A., air-conditioning in drug-manufacturing industry, B., 250.
- Hanley, W. L., *jun*, twin tunnel kiln, (P.), B., 447.
- Hann, J. See Peterson, B. H.
- Haunay, R. J., colouring [and parchmentisation of] fibrous materials, (P.), B., 187.
- Hanovia Chemical & Manufacturing Co. See Anderson, W. T., *jun*.
- Hansche, R., and Still, E. U., properties of *Psyllium* seed, B., 1083.
- Hanseatische Mühlenwerke Akt.-Ges., asphalt and tar emulsions, (P.), B., 8. Soft rubber and soft rubber goods, (P.), B., 437. Concentrated milk products, (P.), B., 1034.
- and Polyphonwerke A.-G., [resinous] moulded articles [*e.g.*, gramophone records], (P.), B., 357.
- and Rewald, B. A., egg-yolk substitutes, (P.), B., 651.
- Hansen, A., purification of snake venoms, A., 84.
- Hansen, Anneliese. See Riesser, O.
- Hansen, A. M., and Parke, Davis & Co., preparation of extract of parathyroid gland, (P.), B., 893.

- Hansen, C. J.**, aqueous solutions of thiocyanate- $\text{SO}_2$  complexes, A., 361. Action of hydrogen sulphide on sulphides and polythionates, A., 795. Polythionates. II. Formation of polythionates from thiosulphates and acids in presence and absence of compounds of arsenic. III. Behaviour of polythionates in alkaline and acid solution, A., 795. Reaction between bisulphite solutions and hydrogen sulphide and its technical application, B., 226. Removal of hydrogen sulphide from combustible gases, (P.), B., 774.
- [with **Hiller, G.**, **Voituret, K.**, and **Zünckel, R.**, technical thionate chemistry. III. Conversion of ammonium thiosulphate into ammonium sulphate and ammonium sulphate-phosphate mixtures, B., 17.
- [with **Worres, H.**, **Hiller, G.**, and **Voituret, K.**, removal of ammonia and hydrogen sulphide from gases by means of thionate solutions, B., 577.
- and **Koppers Co.**, treatment of thiocyanogen compounds, (P.), B., 103. Gas purification, (P.), B., 214. Fertilisers [from ammoniacal gas liquors], (P.), B., 324. Treatment of gases [to remove hydrogen sulphide and ammonia], (P.), B., 339. [Fertiliser] mixtures of ammonium sulphate and diammonium phosphate, (P.), B., 506.
- and **Koppers Co. of Delaware**, treating thiocyanates [to obtain ammonium sulphate and sulphur], (P.), B., 702. Treating thiocyanates [for preparation of ammonium sulphate], (P.), B., 828.
- Hansen, H.**, formulation of second law of thermodynamics, A., 126.
- Hansen, H. L.**, and **Fosdick, L. S.**, alkyl and alkylamine esters of *p*-aminothiobenzoic acid and related compounds, A., 948.
- See also **Suter, C. M.**
- Hansen, J. E.** See **Ebright, H. E.**
- Hansen, K. F. W.**, bitter substances. IV. Bitter substances of cleampanc. V. Constitution of picro-toxin, A., 396, 712.
- Hansen, M.** See **Bauer, O.**, and **Blumenthal, B.**
- Hansen, N. L.**, smoke filters or collective filters, (P.), B., 97.
- Hansen, P. A.** See **Margolena, L. A.**
- Hansen, R. B.**, and **Hazelquist, S.**, acid penetration in sulphite pulping, B., 56.
- Hansen, S.**, **Schou, S. A.**, and **Tonnesen, G.**, injection therapy. V. Preparation of sterile invert sugar solutions, B., 249.
- Hansen, V. A.** See **Du Pont de Nemours & Co., E. I.**
- Hansen, W. W.**, and **Stoddard, K. B.**, relation between line and continuous X-ray spectra, A., 657.
- See also **Webster, D. L.**
- Hansen-Damaschun, I.**, comparative intensity measurements on Raman lines of inorganic complexes, A., 886.
- Hansgirg, F.**, filaments for use as cathodes in thermionic valves, (P.), B., 26. Magnesium, (P.), B., 714.
- Hansley, V. L.** See **Gilbert, H. N.**
- Hansma, J. J.**, detection of starch in margarine of foreign origin, B., 489.
- Hanson, A. J.**, electric furnace, (P.), B., 554.
- and **Amer. Electric Furnace Co.**, electric [heat treatment] furnace, (P.), B., 154.
- Hanson, D. C. E.**, faults in aluminium alloys, B., 511, 1014.
- Hanson, E. A.** See **Katz, J. R.**
- Hanson, E. R.**, **Delaney, M. E.**, and **Halowax Corp.**, sealing composition, (P.), B., 399.
- Hanson, H. H.**, **Seaman, S. E.**, and **Eastern Manufg. Co.**, preparation of  $\alpha$ -cellulose pulp by attrition, (P.), B., 103.
- Hanson, R. L.** See **Brown, H. R.**
- Hanson, T. K.** See **Hammick, D. L.**
- Hanson & Orth.** See **Worden, E. C.**
- Hanson-Van Winkle-Munuing Co.** See **Graham, A. K.**, and **Hogaboom, G. B.**
- Hantzsch, A.**, constitution and reaction of organic and especially tautomeric compounds, A., 142. Constitution of azoimide and azides, A., 1129. Constitution of hyponitrous acid and nitramide, A., 1257.
- and **Burawoy, A.**, constitution of triaryl-methyl compounds, A., 1158.
- and **Torke, E.**, chemically different and differently-coloured chromic hydroxides, A., 39.
- Hanusch, F.** See **Stollé, R.**
- Hanusch, H.** See **Deuts. Houghton Fabr. G.m.b.H.**
- Hanzlik, P. J.**, and **Leland Stanford Junior University**, materials [sodium iodobismuthite] for treatment of neurosyphilis, (P.), B., 892.
- Haq, M. A.**, **Kapur, M. L.**, and **Rây, J. N.**, quinoline derivatives. I. Furano-quinolines, A., 1060.
- Hara, R.** See **Abe, S.**
- Harada, M.** See **Trénel, M.**
- Harada, T.**, action of chloride flux on oxides contained in aluminium, B., 23.
- Haraszi, J.**, and **Széki, T.**, structure of the dimeric modifications of propenylphenol ethers. I. Synthesis of diisoeugenol methyl ether and diisoeugenol. II. Synthesis of diasrarone, A., 818, 1289.
- Harbaugh, M.**, and **Mathers, F. C.**, electrodeposition of bismuth from perchloric acid solutions, B., 923.
- Harbens (Viscose Silk Manufacturers), Ltd.**, and **Leon, M.**, [delustring of] threads, filaments, or fabrics composed of or containing artificial silk, (P.), B., 264.
- Harbert, C. J.** See **Harshaw Chem. Co.**
- Harbison, R. W.** See **Thews, E. R.**
- Harburger Oelwerke Brinckman & Mergell, and Freiburg, A.**, removing impurities from oils and fats, (P.), B., 638.
- Harcourt, G. N.**, and **Alco Products, Inc.**, recovery of drip oil from certain residuums, (P.), B., 1044.
- Harden, A.**, alcoholic fermentation; initial stages of fermentation; fermentation in the yeast cell, A., 95. Acceleration by arsenate of fermentation by yeast, A., 428.
- Harden, W. C.**, derivatives of 3:5-dibromo-2-hydroxybenzyl bromide, A., 1290.
- and **Reid, E. E.**, condensation of phenols with aliphatic aldehydes, A., 61.
- See also **Farinholt, L. H.**, and **Macht, D. I.**
- Harder, A.** See **Zintl, E.**
- Harder, O. E.**, and **Grove, H. A.**, hot-hardness of high-speed steels and related alloys, B., 389.
- Hardesty, J. O.** See **Merz, A. R.**
- Hardgrove, R. M.** See **Babeock & Wilcox, Ltd.**
- Harding, E. A.**, and **Roessler & Hasslacher Chem. Co.**, organic [alkyl] chlorides, (P.), B., 216.
- Harding, F. T.**, condenser, (P.), B., 897.
- Harding, J. B.**, and **Adam, N. K.**, surface films of cellulose derivatives on water and dyestuff solutions. II., A., 1010.
- See also **Adam, N. K.**
- Harding, J. W.**, change of resistance of a semi-conductor in a magnetic field, A., 559.
- Harding, M. W.** See **Moberg, E. G.**
- Harding, V. J.**, and **Downs, C. E.**, **Shaffer-Somogyi reagent** [for determination of sugar], A., 964.
- and **Grant, G. A.**, metabolism of galactose. I. Cutaneous blood-sugars after galactose ingestion, A., 307.
- and **Nicholson, T. F.**, biological reagents in sugar analysis, A., 1037.
- Nicholson, T. F.**, and **Grant, G. A.**, alternative reagent for determination of galactose, A., 438.
- Nicholson, T. F.**, **Grant, G. A.**, **Hern, G.**, and **Downs, C. E.**, analysis of individual carbohydrates, A., 260.
- and **Selby, D. L.**, fermentable sugar in fasting urine, A., 1320.
- Harding, W. H.**, **Burrows, S. V.**, and **Kalbfleisch Corp.**, rosin size, (P.), B., 756.
- Harding, Ltd., S. C. & P.** See **Leuch, W. P.**
- Hardmeier, E.** See **Reichstein, T.**
- Hardt, H. B.** See **Kiehl, S. J.**
- Hardtmuth, F., jun.** See **Kaufhold, R.**
- Hardtmuthová, A.** See **Kaufhold, R.**
- Hardtmuthová, A., jun.** See **Kaufhold, R.**
- Hardy, D. V. N.** See **Morgan, G. T.**
- Hardy, F.**, defecation of sugar-cane juice by bauxite, B., 361. Cultivation properties of tropical red soils, B., 882.
- Hardy, J. D.**, near infra-red bands of ammonia under high dispersion, A., 1228.
- Barker, E. F.**, and **Dennison, D. M.**, infra-red spectrum of  $\text{H}^2\text{Cl}$ , A., 6.
- Hardy, T. W.**, and **Bleakney, H. H.**, report of investigations: [Canadian] Section of ferrous metallurgy. II. Concentration of Texada Island iron ore. IV. Mechanical properties of monel metal. V. Nickel steel from Sudbury copper-nickel ores, B., 389.
- Bleakney, H. H.**, and **Jenkins, W. S.**, report of investigations: [Canadian] Section of ferrous metallurgy. I. Low-sulphur sponge iron from ore-coal mixtures, B., 389.
- and **Farnham, G. S.**, report of investigations: [Canadian] Section of ferrous metallurgy. III. Concentration of Bathurst iron ore, B., 389.
- Hardy, V. R.** See **Dykens, F. A.**
- Hardy, (Sir) W. B.**, recent developments in low-temperature research, B., 204.
- and **Nottage, (Miss) M. E.**, adsorption; availability and accessibility, A., 20.
- See also **Hale, H. P.**
- Hardy, Z.** See **Bougault, J.**
- Hare, W. A.**, and **Mack, E., jun.**, angle between the oxygen linkings by the collision area method, A., 11.
- Harenberg, F.** See **Dilthey, W.**
- Harford, (Miss) M. B.**, **Kenyon, J.**, and **Phillips, H.**, rotatory powers of chlorides produced by heating certain chloroformates in solvents, A., 372.
- Haring, F.** See **Stahl, W.**
- Haring, K. M.**, and **Johnson, T. B.**, nitrogenous glucosides. II. Synthesis of glucosidoureides, A., 284.
- Haring, R. C.**, and **Walton, J. H.**, autoxidation of stannous chloride. II. and III. Survey of certain factors, A., 232, 472.

- Harington, C. R.**, and **Overhoff, J.**, synthesis of 2-thiolhistidine; experiments towards the synthesis of ergothioneine, A., 701.
- and **Randall, S. S.**, water-soluble iodine content of desiccated thyroid gland, A., 298.
- Harker, G.**, radio-sensitivity from a chemical viewpoint, A., 36.
- Harker, G. F. H.**, direct determination of the indices and locations of the spots in a Laue pattern of calcite, A., 340.
- Harkins, W. D.**, neutron and neutron, the new element of at. no. zero, A., 111. Neutron, atomic nucleus, and mass defect, A., 334. Periodic system of atomic nuclei and principle of regularity and continuity of series; A., 442. The neutron, atom building, and a nuclear exclusion principle, A., 552. Oriented molecules at the solid-liquid interface and non-specific nature of ordinary adsorption, A., 1113. Free radicals in electrical discharges, A., 1232.
- and **Bowers, H. E.**, inner vibrations in molecules from the Raman effect, A., 1228.
- and **Doede, C.**, apparatus for separating isohydrogen (deuterium) oxide by electrolysis, A., 1265.
- and **Gans, D. M.**, masses of  $O^{17}$ , A., 333.
- Gans, D. M.**, and **Newton, H. W.**, disintegration of the nuclei of nitrogen and other light atoms by neutrons. I., A., 1225.
- and **Haun, R. R.**, vibration of atoms at end of organic molecules: Raman effect and carbon-chlorine linking, A., 7.
- and **Jackson, J. M.**, spectroscopic study of decomposition and synthesis of organic compounds by electrical discharges: electrodeless and glow discharges, A., 236.
- See also **Haun, R. R.**, and **Ryan, L. W.**
- Harkness, H. S.**, potash recovery from molasses, B., 325, 441.
- Harkness, H. W.**, and **Heard, J. F.**, Stark effect for xenon, A., 200.
- Harkness, R. W.**, and **Emmett, P. H.**, conversion of ortho- into para-hydrogen over promoted iron synthetic ammonia catalysts at  $-190^{\circ}$ , A., 1018.
- Harkort, H.**, and **Harkort, H. J.**, rapid rational analysis [of ceramic materials] B., 465.
- Harkort, H. J.** See **Harkort, H.**
- Harlan, J. D.**, and **Collison, R. C.**, experiments with commercial nitrogenous fertilisers on apple orchards, B., 759.
- Harlass, J.**, resistant coatings based on pure phenolic resins, B., 1068.
- Harlem, J. van.** See **Gans, R.**
- Harler, C. R.**, tea tannin and cup quality, B., 523.
- Harloff, J. C.** See **Karrer, P.**
- Harlos, W.** See **Pohlman, E.**
- Harman, R. W.**, determination of saturation temperature of sucrose solutions, B., 807.
- Harman, S. W.**, codling moth control, B., 763.
- See also **Hartzell, F. Z.**
- Harmon, J.**, and **Marvel, C. S.**, rearrangements of polyenes. IV. *s*-Tetra-phenyldi- $(\gamma$ -methyl- $\gamma$ -ethyl- $\Delta^6$ -pent-1-yl)ethane, A., 605.
- See also **Du Vigneaud, V.**
- Harmon, R. R.**, and **Peabody Eng. Corp.**, apparatus for removing suspended particles from gases and vapours, (P.), B., 657. Apparatus for cleaning gases, (P.), B., 657. Washing of gas, (P.), B., 945. Apparatus for washing gas or vapours, (P.), B., 945.
- Harms, H.**, history of microchemistry. I. A., 587.
- Harms, H. E.** See **Schube, P. G.**
- Harmsen, E. J.** See **Smits, A.**
- Harmsen, H.**, isotope separation by the method of Hertz, A., 658.
- Harnapp, G. O.**, capillary electrometer, A., 139.
- Harned, H. S.**, and **Copson, H. R.**, dissociation of water in lithium chloride solutions, A., 780.
- and **Ehlers, R. W.**, dissociation constant of acetic acid from  $0^{\circ}$  to  $60^{\circ}$ , A., 350. Dissociation constant of propionic acid at  $0$ – $60^{\circ}$ , A., 780. Thermodynamics of aqueous hydrochloric acid solutions from e.m.f. measurements, A., 781.
- and **Hamer, W. J.**, ionisation constant of water and the dissociation of water in potassium chloride solutions from e.m.f. of cells without liquid junction, A., 780.
- Harnist, C.**, heating of ammonium thionate under pressure and new polythionate process of gas purification, B., 701. Transformation of ammonium thionates and thiocyanate under pressure into sulphate and sulphur, B., 747.
- Harnsberger, A. E.**, **Christy, A. L.**, and **Pure Oil Co.**, apparatus for refining hydrocarbon oil, (P.), B., 854.
- and **Gyro Process Co.**, oil-heating still, (P.), B., 539. [Hydrocarbon] oil converter, (P.), B., 539.
- and **Pure Oil Co.**, apparatus for distilling hydrocarbon oils, (P.), B., 456. Treatment of hydrocarbon oils, (P.), B., 500. Treating an oil gas, (P.), B., 854.
- Smith, C. L.**, and **Gyro Process Co.**, apparatus for cracking hydrocarbon oils, (P.), B., 539. Catalytic core and its method of production [for use in tubular oil heaters], (P.), B., 575. Heating of oil, (P.), B., 854. Conversion of heavy hydrocarbons into lighter hydrocarbons, (P.), B., 854.
- Haroldson, A. H.** See **Richards, B. H. F.**
- Harper, E. E.**, material mixing, feeding, and measuring apparatus, (P.), B., 608.
- Harper, G. I.**, constant deviation X-ray vacuum monochromator, A., 925.
- Harper, H. J.**, determination of easily soluble phosphorus in soils, B., 83. Easily soluble phosphorus content of soil as determined by electrodialysis, extraction with dilute acid solutions, and crop response to fertilisation, B., 278.
- Harper, W. R.**, emission of positive ions from cold surfaces under the influence of strong electric fields, A., 3. Relation between ionisation and ionisation current in gases at high pressures, A., 202. Ionisation of light gases by X-rays. I. Technique. II. Ionisation of hydrogen by recoil electrons, A., 1097.
- Harpic Manufacturing Co., Ltd.**, and **Pickup, H.**, moth-proofing [compositions], (P.), B., 587.
- Harr, R.**, throwing power and current efficiency of the nickel-plating solution at low and at high  $p_H$ , B., 922.
- Harral, J. C.**, formaldehyde titration of milk proteins and its use in detection of reconstituted creams, etc., B., 1080.
- Harrap, E. R.**, and **Turner, R. H.**, sheets, boards, slabs, etc., from fibrous material, (P.), B., 58.
- Harrel, C. G.**, and **Duoss, S.**, economical [electric] muffle furnace operation, B., 1064.
- Harreveld, A. van**, antirachitic properties of vitamin-D preparations, A., 645.
- Harrington, E.**, air conditioning for comfort and health, B., 653.
- Harrington, E. L.**, the "rotette," an apparatus for handling small quantities of liquids with rapidity and precision, A., 249.
- and **Braaten, E. O.**, mobilities of molecular aggregates in gases containing radon, A., 334.
- and **Central Scientific Co.**, laboratory support, (P.), B., 898.
- Harrington, J.** See **Berrigan, J. B.**
- Harris, A. W.** See **Charlesworth, S. I.**
- Harris, B. R.** See **Epstein, A. K.**
- Harris, C. R.**, **Pitman, A. L.**, and **Roessler & Hasslacher Chem. Co.**, composition of matter; [warning of leakage of refrigerants], (P.), B., 658.
- See also **Carlisle, P. J.**
- Harris, E. E.**, effect of alkali treatment on yield of lignin, B., 459.
- Harris, G. D.**, and **Industrial Dryer Corp.**, drying of liquid materials, (P.), B., 370.
- Harris, H. A.**, glycogen in cartilage, A., 176.
- Harris, H. J.** See **Gardner, W. H.**
- Harris, J. W. H.**, caesium polybromides, A., 36.
- Harris, J. A.**, and **Cameron, A. H.**, acetates as a means of separating the yttrium group rare-earth elements from each other, A., 365.
- and **Wylie, (Miss) D. E.**, comparison of the efficiencies of bromates and nitrates in separation of the rare-earth elements from one another, A., 365.
- Harris, J. B., jun.**, [two-colour photography], (P.), B., 45. Colour photography, (P.), B., 285.
- Harris, J. E.**, **White, J. H.**, and **Bell Telephone Labs.**, refining of copper, (P.), B., 153.
- Harris, J. E. G.** See **Morton, J.**
- Harris, J. J.**, hydrogen-producing organism from spoiled cream style maize, A., 753.
- Harris, L.**, purification and ultra-violet transmission of ethyl alcohol, A., 661.
- Benedict, W. S.**, and **King, G. W.**, form and vibrational frequencies of the  $NO_2$  molecule, A., 557.
- and **Johnson, E. A.**, strong cellulose acetate films, A., 1027.
- Harris, L. E.**, and **Griffith, I.**, *Amphibaccharis dracunculoides* (DC.), Nutt.: flowering branches, A., 650.
- Harris, L. J.**, chemical test for vitamin-C, and reducing substances present in tumour and other tissues, A., 872. Reducing substances in tumours, A., 1188.
- and **Ray, S. N.**, vitamin-C and the suprarenal cortex. I. Antiscorbutic activity of ox suprarenal. II. Loss of potency of guinea-pig suprarenals in scurvy; determination of antiscorbutic activity (hexuronic acid) by chemical means, A., 325, 541. Hexuronic (ascorbic) acid as the antiscorbutic factor, A., 646.
- See also **Birch, T. W.**

- Harris, *M.*, detection of lead in spray residues, B., 681.
- Harris, *Milton*, combination of silk and wool with positive and negative ions, B., 618.
- Harris, *M. M.* See Brand, *E.*
- Harris, *P. M.* See Richards, *W. T.*
- Harris, *R. G.*, mucification of the vaginal epithelium of mice as a test for pregnancy-maintaining potency of extract of corpora lutea, A., 98.
- Harris, *R. H.*, effect of sucrose, cooked potato, potassium bromate, and malt on baking strength at various yeast concentrations, B., 90. Relation between total protein, peptisable protein, and loaf volume as obtained by successive increments of potassium bromate, B., 247. Effect of diastatic malt on loaf volumes of commercial flours, B., 362. Study of commercially milled flours dealing with protein and its relation to peptisation and baking strength, B., 488.
- Harris, *R. S.*, and Bunker, *J. W. M.*, bacterial detoxification, A., 430.  
See also Bunker, *J. W. M.*
- Harris, *S.* See Colby, *M. Y.*
- Harris, *S. A.*, abnormal reactions of organometallic compounds; cinnamyl chloride and magnesium; Grignard reagent from halogenated tertiary amines, A., 407.  
See also Gilman, *H.*, and Levene, *P. A.*
- Harris, *S. E.* See Christiansen, *W. G.*
- Harris, *T. H.* See Palkin, *S.*
- Harrison, *A. D.*, inert gas, (P.), B., 951.
- Harrison, *A. H.* See Harrison, *C. H.*
- Harrison, *A. L.* See Pirone, *P. P.*
- Harrison, *A. W. C.*, types of stoving finishes, B., 676.
- Harrison, *C. A.* See Hunt, *G. M.*
- Harrison, *C. H.*, and Harrison, *A. H.*, synthetic building blocks, (P.), B., 589.
- Harrison, *D. C.*, chemical nature of the active group in glucose-dehydrogenase, A., 747. Glucose-dehydrogenase; preparation and properties of the enzyme and its co-enzyme, A., 747. Action of vitamin-C on oxidation of tissues *in vitro*, A., 1340.
- Harrison, *E. S.*, and Savage, *E. S.*, effect of different planes of protein intake on milk production, A., 177.
- Harrison, *G. A.*, approximate determination of spermine in single human organs, A., 1067.
- Harrison, *G. R.*, mechanical aid to analysis of complex spectra, A., 247. Quantitative intensity determinations in spectra of normal and of singly-ionised vanadium V I and V II, A., 331.
- Harrison, *H. A.*, controlled chlorination of water as a means of preventing slime formation in paper mills, B., 13. Rosin sizing [of paper], B., 57. Hydration of cellulose, B., 381. Effect of wetting-out agents on hydration and strength of wood pulp, B., 381. Laboratory beating characteristics of unbleached raffia pulp, B., 459. Effect of various methods of preparing disintegrated pulp before beating on strength and other characteristics after beating, B., 619. Effect of Permalin W on rate of water penetration through rosin-sized paper, B., 619.
- Harrison, *H. C.*, electrolytic apparatus [for electrodeposition of metals], (P.), B., 474.
- Harrison, *J. S.*, and Standard Oil Co., liquid [hydrocarbon] heating and vaporising, (P.), B., 139.
- Harrison, *J. W. E.* See Lawall, *C. H.*
- Harrison, *K.* See Dixon, *K. C.*
- Harrison, *L. B.*, chlorination [of water] in presence of traces of ammonia, B., 1088.
- Harrison, *R. L.* See Peffer, *H. C.*
- Harrison, *R. T.* See Chloride Electrical Storage Co.
- Harrison, *T. R.* See Cullen, *G. E.*
- Harrison, *W.*, general chemical equation, A., 660.
- Harrison, *W. F.*, printing ink, B., 436.
- Harrison, *W. N.*, and Sweo, *B. J.*, fusion properties of ground-coat enamels as influenced by composition, B., 387.
- Harrison Steel Castings Co. See Woodhall, *W. H.*
- Harrop, *G. A.*, Ellsworth, *R.*, Soffer, *L. J.*, and Trescher, *J. H.*, adrenal cortex. III. Plasma electrolytes and electrolyte excretion during adrenal insufficiency in the dog, A., 1210.
- and Weinstein, *A.*, adrenal cortex. I. Cortical adrenal insufficiency and action of the cortical hormone on the normal and adrenalectomised dog, A., 642.
- Weinstein, *A.*, Soffer, *L. J.*, and Trescher, *J. H.*, adrenal cortex. II. Metabolism, circulation, and blood concentration during adrenal insufficiency in the dog, A., 1210.
- Harrop Ceramic Service Co. See Hartford, *F. M.*
- Harrow, *B.*, Mazur, *A.*, and Sherwin, *C. P.*, acetylation; fate of *p*-aminobenzoic acid in the rabbit, A., 1194.
- Harrower, *J.* See Rule, *H. G.*
- Harshaw, *W. J.*, Parke, *C. S.*, and Harshaw Chem. Co., apparatus for making hydrofluoric acid, (P.), B., 59.  
See also Harshaw Chem. Co.
- Harshaw Chemical Co., and Harbert, *C. J.*, [ceramic] pigments, (P.), B., 676.
- and Harshaw, *W. J.*, metallic compositions [e.g., porous bronze bearings], (P.), B., 272.  
See also Harshaw, *W. J.*
- Hart, *C.*, and Wrought Iron Co. of America, puddling, (P.), B., 873.
- Hart, *E. B.*, Kline, *O. L.*, and Humphrey, *G. C.*, effect of artificial drying on availability of nutrients of alfalfa [lucerne] hay, B., 42.
- and Wisconsin Alumni Research Foundation, compound for prevention and treatment of anamia, (P.), B., 652.  
See also Donk, *E. C.*, van, Elvehjem, *C. A.*, Kline, *O. L.*, and Kozelka, *F. L.*
- Hart, *L.*, determination of aluminium in ash of plant materials, fruit juices, etc., B., 523.
- Hart, *L. P.*, rubber-seed oil, B., 1066. Impact adhesion and brittleness tester [for paint, etc., films], B., 1067.
- and Gardner, *H. A.*, solid colour alkylid (glycerin phthalate) coatings, B., 1067.  
See also Gardner, *H. A.*
- Hart, *M. C.* See Heyl, *F. W.*, and Swoap, *O. F.*
- Hart, *R.*, effect of salt on boil-off in silk-soaking, B., 583.
- Harte, *C. R., jun.*, and Baker, *E. M.*, absorption of carbon dioxide in sodium carbonate-hydrogen carbonate solutions. II, A., 1246.
- Harte, *C. R., jun.*, Baker, *E. M.*, and Purcell, *H. H.*, absorption of carbon dioxide in sodium carbonate-hydrogen carbonate solutions. I, A., 781.
- Harte, *R. T.* See Witty, *G.*
- Hartack, *P.*, preparation of HNO or [HNO]<sub>2</sub>, A., 361. Vacuum work [in the laboratory], A., 368. Hydrogen atoms, oxygen atoms, and the hydroxyl radical, A., 1254.
- and Schmidt, *H. W.*, self-diffusion of hydrogen, A., 770.  
See also Geib, *K. H.*
- Hartel, *H. von*, creation of free radicals in highly diluted gas reactions, A., 1269.
- Meer, *N.*, and Polányi, *M.*, reaction velocity of chloroalkyls with sodium vapour, A., 31.
- Hartelius, *V.*, occurrence of growth-promotor B in urine, A., 751. Occurrence of growth-promotor B, A., 751.  
See also Nielsen, *N.*
- Hartenstein, *H. L.*, fertilisers, (P.), B., 805. Fertiliser [from peat], (P.), B., 935.
- Hartford, *F. M.*, and Harrop Ceramic Service Co., apparatus for treating ceramic ware, (P.), B., 589.
- Hartford-Empire Co., and McIntosh, *H. W.*, electric melting of glass, etc., (P.), B., 787.  
See also Amsler, *W. O.*, McIntosh, *H. W.*, and Willetts, *P. G.*
- Hartig, *P. E.*, and Nat. Pigments & Chem. Co., composition [meal] for taking of [photographs of internal organs by] X-rays, (P.), B., 492.
- Hartig, *H. E.*, and Sullivan, *B.*, value of electrical methods for determination of moisture in wheat, B., 488.
- Hartleb, *O.* See Lederer, *E. L.*
- Hartley, *A. C.* See Anglo-Persian Oil Co.
- Hartley, *C. J.*, sewage-treatment tanks, (P.), B., 574.
- Hartley, *E. G. J.*, and Powell, *H. M.*, alkylated complex cyanides. I. Isomerism of alkylated ferrocyanides. II. Hexaethylated ferrocyanides, A., 266.
- Hartley, *G. S.*, and Moilliet, *J. L.*, moving boundary method for determination of transport numbers, A., 571.
- Hartley, (Sir) *H. B.*, conversion of potential energy of coal gas into radiant energy, B., 209.  
See also Barak, *M.*, Clark, *D. N.*, Hughes, *O. L.*, and Mead, *T. H.*
- Hartley, *H. J.*, and Nichols Engineering & Research Corp., treatment of [spent filtering] earths [from oil refining], (P.), B., 100.
- Hartley, *K. T.*, and Greenwood, *M.*, effect of small applications of farmyard manure on yields of cereals in Nigeria, B., 883.
- Hartman, *C. D.* See McJunkin, *F. A.*
- Hartman, *F. A.* See Brownell, *K. A.*
- Hartman, *F. W.*, and Foster, *D. P.*, clinical evaluation of blood-phosphates and sugar tolerance curves, A., 180.
- Hartman, *H.* See Verkad, *P. E.*
- Hartman, *R. J.*, Canning, *E. W.*, and Gallion, *F. J.*, periodic precipitation of ferrous carbonate, A., 346.
- Hartman, *S. H.*, and Armstrong Cork Co., waterproof covering, (P.), B., 276.
- Hartman, *W. W.*, and Dickey, *J. B.*, preparation of furil, A., 510.
- Smith, *L. A.*, and Dickey, *J. B.*, diphenyl sulphide, A., 61.  
See also Kodak, Ltd., and Phillips, *R.*



- Hartmann, A. See Zart, A.
- Hartmann, A. F., and Senn, M. J. E., metabolism of sodium *dl*-lactate. I. Response of normal human subjects to intravenous injection of sodium *dl*-lactate. II. Subjects with acidosis. III. Subjects with liver damage, disturbed water and mineral balance, and renal insufficiency, A., 86.
- Hartmann, B. G., and Hillig, F., citric acid in milk, B., 40. Determination of *l*-malic acid in fruits and fruit products, B., 41. Determination of inactive malic acid in fruits and fruit products, B., 683. Determination of lactic acid in milk and milk products, B., 936. Approximation of the milk solids of a milk product by means of its citric acid content, B., 936. Determination of milk solids in bread, B., 936.
- Hartmann, Friedrich, and Rosenfeld, P., activity coefficients of nitric acid, A., 675.
- Hartmann, Fritz, disintegration phenomena in blast-furnace bricks, B., 106.
- Hartmann, H. See Meyerhof, O., and Runge, H.
- Hartmann, Hellmuth. See Ebert, Fritz.
- Hartmann, M., and Seiberth, M., tetralin peroxide, A., 61.
- Hartmann, P. See Fischer, Hans.
- Hartnagel, J. See Treadwell, W. D.
- Hartner, F., micro-determination of bromine in presence of a large excess of chlorine, A., 477.
- Hartner-Seberich, R., and Horn, O., lowering the auto-ignition temperature of bituminous coal-tar oils, B., 497.
- Hartoch, W. See Zondek, H.
- Hartog, (Sir) P. J., date and place of Priestley's discovery of oxygen. II., A., 802.
- Hartree, D. R., calculations of atomic wave functions. I. Survey and self-consistent fields for Cl<sup>-</sup> and Cu<sup>+</sup>, A., 1101. and Black, (Miss) M. M., oxygen atom in various states of ionisation, A., 202.
- Hartridge, H., extending the frequency range of the cathode-ray tube, A., 201. Detection of traces of carbon monoxide in air, B., 525.
- Hartshorne, N. H., chemical applications of the polarising microscope, A., 585.
- Hartstoft-Metall Akt.-Ges. (Hametag), insulated ferromagnetic [iron] powder and cores therefrom, (P.), B., 195.
- Hartwell, F. J. See Coward, H. F.
- Hartwell, G. A., growth and reproduction on synthetic diets. III. Fats, A., 630.
- Hartwig, W., and Johnsen, A., lustre and refraction of transparent substances, A., 209.
- Harty, W. A., Moore, F. W., and Tyler Co., W. S., rotary dryer, (P.), B., 447.
- Hartzell, A., Lathrop, F. H., O'Kane, W. C., and Moore, Paul, colloidal substances [sulphur], (P.), B., 548. See also Wilcoxon, F.
- Hartzell, F. Z., tar-distillate sprays for foliage application, B., 646.
- Parrott, P. J., and Harman, S. W., tar-distillate sprays against fruit aphids and associated insects, B., 646.
- Harnkawa, C., toxic action of certain chemicals on aquatic Oligochaetes, A., 861.
- Harvalik, Z. See Starkenstein, E.
- Harvel Corporation. See Harvey, M. T.
- Harvey, A., and Dreblow, E. S., spectroscopic examination of thin metallic films, A., 925. See also Dreblow, E. S.
- Harvey, A. M. See Burgess, W. W.
- Harvey, A. R., and Garner & Harvey Co., [waterproof] paper, (P.), B., 103.
- Harvey, C. O. See Francis, A. G.
- Harvey, E. H., absorption spectra [of the Na salt of tetraiodophenolphthalein and phenoltetraiodophthalein], A., 553. Refractometric measurement of ethylene glycol type antifreeze mixtures, B., 47. Measurement of radiation output of ultra-violet lamps, B., 272.
- Harvey, Edward W., and Barrett Co., treatment of liquids with ammonia, (P.), B., 702. Application of aqua-ammonia to fertiliser mixtures, (P.), B., 983.
- Harvey, Eric W., sugar-free beer, (P.), B., 329.
- Harvey, F. E., thermal decomposition of crystals of barium azide, A., 574.
- Harvey, G. G., diffuse scattering of X-rays from sylvine. II. and III. IV. Scattering at high temperatures, A., 549, 666, 1002.
- Harvey, M. T., and Harvel Corp., [salt] composition for controlling moisture [in tobacco, foodstuffs, etc.], (P.), B., 625.
- Harwell, J. G. See Freed, S.
- Harwood, H. J., physiological action of cystinyl peptides and guanidine derivatives, A., 745. and Johnson, T. B., isoquinoline derivatives. I. II. Synthesis of 6:7-dimethoxy-1-aminomethyl-1:2:3:4-tetrahydroisoquinoline, A., 836, 1306.
- Hasan, A., susceptibility of *Bilharzia miracidia* to different salts and different pH, A., 428.
- Hasan, C., and Hunter, R. F., naphthathiazolo series. I. Constitution of the bromo-additive compounds of bromo-substituted alkylamino- $\beta$ -naphthathiazoles obtained in the bromination of *s-a*-naphthylalkylthiocarbamides, A., 726.
- Haschek, E., and Haitinger, M., simple method of colour determination applied to fluorescence colour, A., 585.
- Haschek, L. See Schmid, L.
- Hase, A., ethylene oxide as a parasiticide, B., 286. Ethylene oxide as fumigant, B., 935.
- Hase, H., electron emission by metals under influence of monochromatic X-rays, A., 333.
- Hase, S., spinning of viscose silk. VIII. Factors affecting the coagulation velocity. IX. Reaction taking place during ripening of the cakes. X. Composition of the coagulating bath in contact with a fine stream of viscose. XI. Theory of coagulation. XII. Relation between sulphuric acid and cellulose content of cake, and distribution of coagulation-bath liquor in cake, B., 13, 186, 502.
- Haseltine, T. R., use of [sewage] sludge gas for power production; cause and effect of variations in composition of gas, B., 737.
- Haseman, J. D., solid silicic acid-containing bleaching agents, (P.), B., 266.
- Hasenratz, V., properties of *d*-xylonolactone, A., 376. Presence in an oxygen-free alkaloid in *Gelsemium sempervirens*, A., 878.
- Hashima, T. See Yamamoto, E.
- Hashimoto, A. See Asahina, Y.
- Hashimoto, S., histological applications of triphenylmethane and diphenylnaphthylmethane dyes. I.—VI., A., 625.
- Haskins, H. D. See Campbell, R. A.
- Haskins, J. F., and Du Pont Rayon Co., electrification of cellulose, (P.), B., 542.
- Haslam, J., quantitative separation of aluminium from iron, A., 688.
- Haslam, R. T., and Standard Oil Development Co., preparation of fatty acids, (P.), B., 998.
- Haslewood, G. A. D. See Cook, J. W., Danielli, J. F., and Smith, Eric R.
- Hass, K., and Jellinek, K., activity coefficients of ions, A., 26. Reciprocal solubility of fused lead or bismuth and fused zinc, A., 771.
- Hassan, A., and Basha, M. K. A., a prolamin isolated from a legume seed, A., 329. and Basili, R., antiscorbutic value of fresh lime juice, A., 196. and El Ayyadi, M. A. S., effect of hydrolysis on the sugars of normal urine, A., 178.
- Hassebrauk, K. See Gassner, G.
- Hassel, O., crystal structure of cadmium iodide, A., 1004. and Kringstad, H., acid fluorides of thallium and ammonium and their mixed crystals, A., 37. Dimensions of complex anions and lattice dimensions of Werner's co-ordination compounds of the fluorite and yttrium fluoride type, A., 114. and Luzanski, N., X-ray examination of ammonium hydrogen fluoride, A., 13. and Næshagen, E., electric moments of cyclohexano derivatives, A., 210. See also Böttker-Næss, G.
- Hasselblatt, M., alarm clock operating at short intervals in a laboratory, A., 587.
- Hasselbohm, S. See Alber, H.
- Hassell, F., and Risvold, J. C., cold white light [device], (P.), B., 274.
- Hasselström, T. See Komppa, G.
- Hassid, N. J. See Maxted, E. B.
- Hassid, W. Z., occurrence of dulcitol in *Iridaea laminarioides* (*Rhodophyceae*), A., 1217. Isolation of a sodium galactan sulphate from *Iridaea laminarioides* (*Rhodophyceae*), A., 1342.
- Hastings, A. B. See Barron, E. S. G., Miller, C. P., jun., Mishkis, M., and Phemister, D. B.
- Hastings, J. J. H. See Walker, T. K.
- Hastings, R. J. See Newton, W.
- Hata, S., minor constituents of thermoluminescent calcite, A., 483.
- Hatakeyama, T. See Katsura, S.
- Hatch, L. A., and Minnesota Mining & Manufg. Co., separation of materials, (P.), B., 608.
- Hatch, R. S., and Ligno-Cellulose Corp., cellulose from lignified material, (P.), B., 103.
- Hatch, T., determination of "average particle size" from screen-analysis of non-uniform particulate substances, B., 207.
- Hatcher, R. A., and Haag, H. B., pharmacology of *Adonis vernalis*, A., 422.
- Hatcher, W. H., and Kay, M. G., polymerisation of acetaldehyde. II., A., 130. and Mason, C. T., viscosities of acetaldehyde and paraldehyde, A., 770.
- Hatfield, I., suggested wood preservatives, B., 749.
- Hatfield, W. H., rust- and acid-resisting steels; progress and future trend, B., 231. Drill steels for mining purposes, B., 430. Strength and behaviour of steels at high temperatures, B., 750.

- Hatfield, *W. H.*, and Bridge, *J. F.*, stainless steel alloys for use in turbine blading, (P.), B., 873.
- See also Dickenson, *J. H. S.*
- Hathaway, *W.*, Wyatt, *E. M.*, and Amer. Face Brick Res. Corp., kiln for production of cellular building material, (P.), B., 469.
- Hatherell, *G. A.*, and Garbutt, *F. A.*, chewing-gum base, (P.), B., 891.
- Hathorne, *B. L.*, effect of ageing on sulphur-black-dyed fabrics and of well-known after-treatments, B., 125.
- Hatos, *G.*, compensating apparatus for avoiding troublesome calculations in  $pH$  determinations, A., 135.
- Hatschek, *E.*, study of gels by physical methods, A., 124. Elastic properties of glycerol-gelatin gels and of gelatin gels hardened with formaldehyde, A., 1244.
- See also Electro Chem. Processes, Ltd.
- Hatsuta, *K.*, equilibrium diagram of the system chromium-carbon, A., 351.
- Hatt, *D.*, new industrial synthesis of sodium cyanide, B., 145.
- Hatt, *H. H.*, phosphorus derivatives of triphenylmethane, A., 962.
- Hatta, *A.* See Murakami, *T.*
- Hatta, *S.*, velocity of absorption of gases by liquids. III. Theoretical considerations of gas absorption due to chemical reactions. IV. Absorption of carbon dioxide by potassium carbonate solutions. I. V. Absorption of carbon dioxide by potassium carbonate solutions. II., A., 233. Gas-volumetric analysis of carbonic acid in solutions and solids, A., 243. Humidity chart applicable to most industrial gases, B., 735.
- Hattori, *C.* See Soda, *T.*
- Hattori, *S.*, and Hayashi, *Kôzô*, fission of wogonin by alkali; formation of iretol, A., 1166.
- Hatz, *E.* See Rusznýk, *S.*
- Haubach, *F.* See I. G. Farbenind.
- Hauch, *J. T.*, effect of high doses of irradiated and non-irradiated ergosterol on the albino rat, A., 1088.
- Hauck, *H. M.*, Steenbock, *H.*, and Parsons, *H. T.*, effect of level of calcium intake on calcification of bones and teeth during fluorine toxicosis, A., 861.
- Hauer, *E.* See Dubský, *J. V.*
- Hauff, *H. A.* See Heppenstall, *T. E.*
- Haug, *K.* See Anker, *C.*, and Samuelson, *S.*
- Haug, *R.* See Wagner, *Hans.*
- Haugaard, *G.* See Sørensen, *M.*
- Hauge, *S. M.* See Curtis, *P. B.*, Hilton, *J. H.*, and Wilbur, *J. W.*
- Haughey, *T. P.*, treatment [retting] of vegetable fibres, (P.), B., 58\*.
- Haun, *R. R.*, and Harkins, *W. D.*, Raman spectrum of germanium tetrachloride, A., 7.
- See also Harkins, *W. D.*
- Hauptstein, *P.*, acetylcholine in the human placenta, A., 625.
- Haupt, *H.*, production of potable water by infiltration and treatment of surface water, B., 574.
- Hauptmann, *H.*, and Balconi, *M.*, determination of molybdenum in manganese minerals, A., 1263.
- See also Goldschmidt, *V. M.*
- Haurowitz, *F.*, and Breinl, *F.*, specific combination of arsanil-protein and arsanilic acid with immune serum, A., 411.
- Haurowitz, *F.*, and Kittel, *H.*, magnetic behaviour of haemoglobin derivatives, A., 1060.
- See also Clair, *E.*
- Haury, (*Mlle.*) *M.* See Forestier, *H.*
- Hausam, *W.*, bacteriology of salt-stained French calves, B., 931.
- See also Bergmann, *M.*
- Hauschild, *W.* See Ruzicka, *L.*
- Hause, *C. D.* See Almy, *G. M.*
- Hausen, *H.*, new equation of state for water vapour, A., 117.
- Hausen, *S. von*, vitamin formation in plants, A., 757.
- See also Virtanen, *A. I.*
- Hauser, *E. A.*, and Gill, *A.*, rubber and similar compositions, (P.), B., 116.
- and Huenemoerder, (*Miss*) *M.*, impregnating fabrics with rubber [latex], B., 317.
- Hausman, *J.*, conversion of crude oils containing paraffin into asphalts for road-making, B., 418.
- Hausner, *J.*, determination of chlorine in bleach liquors, B., 827, 1008.
- Hauss, *H.* See Fischler, *F.*
- Haussmann, *G.* See Kolbach, *P.*
- Hauswirth, *G.* See Pongratz, *A.*
- Haut, *A. H.* See Bacharach, *G.*
- Hautot, *A.*, structure of *K* of carbon, A., 201. Structure of *K* line of boron, A., 440. Structure of *K*-rays of light elements, A., 656. Structure of *K* spectrum of very light atoms, A., 760.
- See also Morand, *M.*
- Haveaux, *E.*, apparatus for wet separation of dust from gases, (P.), B., 97.
- Haveman, *H.* See Skita, *A.*
- Eavenhill, *R. S.* See Zimmerli, *W. F.*
- Havens, *G. G.*, magnetic susceptibilities of common gases, A., 766.
- Hawes, *W. B.*, the heat-transfer problem, B., 1039.
- Hawes, *W. W.* See Kraus, *C. A.*
- Hawke, *C. E.* See Benner, *R. C.*
- Hawke, *W. B.*, castor pomace, B., 279.
- Hawkins, *J. E.*, activity coefficients of hydrochloric acid in uni-univalent chloride solutions at constant total molality, A., 126.
- Hawkins, *W. B.* See Queen, *F. B.*
- Hawkins, *W. J.*, and Amer. Machine & Foundry Co., fusible alloy, (P.), B., 874.
- Hawkyard, *A.*, gas-analysing apparatus, (P.), B., 258.
- Hawley, *C. G.*, and Centrifix Corp., de-concentrator, (P.), B., 656. Evaporator top, (P.), B., 688. Gas conditioner, (P.), B., 1040.
- Hawley, *H.*, determination of "extract" of coffee, B., 444. Milk-calculation formula for use at tropical temperatures, B., 569. Determination of milk solids by drying *in vacuo* on asbestos, B., 682. Phytosteryl acetate test as a routine method in examination of butter fats with border-line Reichert-Meissl values, B., 1065. Determination of iodine values by the pyridine sulphate [di]-bromide method, B., 1065.
- Hawley, *L. F.*, and Norman, *A. G.*, differentiation of hemicelluloses, A., 55.
- Haworth, *J.*, prevention of ponding on sewage filters by means of chlorine treatment, B., 493. Bio-aëration or activated sludge, B., 990. Chlorination of sewage for prevention of septicity, B., 1038.
- Haworth, *L. J.*, secondary electrons from molybdenum, A., 202.
- Haworth, *R. D.*, alkylphenanthrenes. IV. 7-Methyl-1-ethyl- and 1-ethyl-7-isopropyl-phenanthrenes: constitution of abietic and *d*-pimaric acids, A., 57.
- and Mavin, *C. R.*, alkylphenanthrenes. V. 9-Methyl-, 1:9-dimethyl-, and 1:2:8-trimethyl-phenanthrenes, A., 57. New route to chrysene and 1:2-benzanthracene, A., 1043.
- Haworth, *W. N.*, constitution of ascorbic acid, A., 698.
- and Hirst, *E. L.*, molecular structure of polysaccharides, A., 261. Synthesis of ascorbic acid, A., 936.
- See also Ault, *R. G.*, Carrington, *H. C.*, and Szent-Györgyi, *A.*
- Haxel, *O.*, proton emission from aluminium excited by  $\alpha$ -rays from radium-C and thorium-C, A., 762.
- Hay, *S.* See Gas Light & Coke Co.
- Hayakawa, *R.* See Okada, *H.*
- Hayama, *N.* See Wada, *Masao.*
- Hayami, *N.* See Katô, *Y.*
- Hayashi, *D.*, and Nishikawa, *Y.*, flavoured spirituous liquors, (P.), B., 362.
- Hayashi, *G.* See Hachihama, *Y.*
- Hayashi, *H.* See Asahina, *Y.*
- Hayashi, *I.*, Kanda, *Z.*, Sato, *T.*, and Matsuniya, *I.*, action of furfuraldehyde on respiratory and blood gas, A., 1076.
- Hayashi, *Katsuzô*. See Nakashima, *M.*
- Hayashi, *Kôzô*, spectrography of benzopyrylium pigments. I. Influence of substitution in the side phenyl group, A., 832.
- See also Hattori, *S.*
- Hayashi, *Masakatsu*, pharmacological action of narcotine and its derivatives, A., 744.
- Hayashi, *Mosuke*, and Kawasaki, *K.*, preparation of nitrophthalic anhydrides, A., 608.
- Kawasaki, *K.*, and Nakayama, *A.*, anthraquinone derivatives. I. Chloroaminoanthraquinone, A., 612.
- and Nakayama, *A.*, fluorene derivatives. I. 3-Aminofluorene, A., 602. Anthraquinone derivatives. II. Chloroaminoanthraquinones, A., 954.
- Hayashi, *Taro*, application of the Raman effect to investigation of molecular constitution in organic chemistry. I. Aliphatic diketones and resorcinol, A., 764.
- Hayashi, *Toshio*, relation between liver function and liver-glycogen, -fat, and -nitrogen. I.—VII., A., 527.
- Hayashi, *Y.*, enzymic action of glycerol extracts of livers of various animals in the liver- and muscle-glycogen of the rabbit, liver-glycogen of *Bufo vulgaris*, and glycogen of oysters, A., 533.
- and Yagi, *H.*, fertilising value of Peruvian nitrogenous guanos, B., 483.
- Hayasi, *K.*, inorganic constituents of nerve tissue, A., 735.
- Hayasida, *A.*, non-solvent space of serum and bound chlorine of serum-protein, A., 1182.
- Hayden, *A. H.*, and Jordan, *C. B.*, chemistry of Ma Huang, B., 891.
- Hayden, *C. C.* See Krauss, *W. E.*
- Hayden, *C. E.* See Sampson, *J.*
- Hayden, *H. C.* See Lewis, *J. H.*
- Hayden, *O. M.* See Du Pont de Nemours & Co., *E. I.*
- Hayek, *E.*, basic salts. II. Simple basic chlorides of bivalent heavy metals, A., 360.
- Haymal, *P. C. L.* See Jahn, *F. K.*
- Hayes, *C. I.*, method and furnaces for heat treatment of metals, (P.), B., 833.

- Hayes-Gratze, E. V., insecticide and fungicide, (P.), B., 165. Caulking and packing material for use in making pipe and other joints, (P.), B., 898. Treatment of waste material obtainable from coconuts and other vegetable products, (P.), B., 1019.
- Haylett, R. E. See Ragatz, E. G.
- Hayman, J. M., jun., and Bender, J. A., nephritic albuminuria, A., 526.
- and Johnston, S. M., excretion of inorganic sulphates, A., 84.
- Hayward, C. R. See Jackman, R. B.
- Haywood, C. and Root, W. S., effect of carbon dioxide in presence of varying amounts of hydrogen carbonate on the cleavage rate of the egg of *Arbacia*, A., 310.
- Hazard, W. G., and Ishikawa, Tomoyoshi, alternating-current precipitators for sanitary air analysis. II. Acid formation in electric precipitators, A., 249.
- Hazel, F., and McQueen, D. M., migration studies with colloids. I. Effect of electrolytes and of colloids of opposite sign on the stability of colloidal systems. II. Mechanism of the mutual coagulation process, A., 778.
- Hazel-Atlas Glass Co. See Gray, D. M.
- Hazell, E. See Gibbons, W. A., and Revere Rubber Co.
- Hazelquist, S. See Hansen, R. B.
- Hazeltine, F. T. See Flint, J. A.
- Hazley, V. See Bacharach, A. L.
- Hazmburg, R. S. von. See Clark, J. d'A.
- Heacock, E. See Leonard, G. F.
- Head, F. S. II. See Drew, H. D. K.
- Headington, C. E. See Brown, F. E.
- Headlee, A. J. W., Collett, A. R., and Lazzell, C. L., reactions of ethylene oxide. I. Action of ethylene oxide on diethylamine, A., 493.
- Headlee, T. J., Ginsburg, J. M., and Tobacco By-Products & Chem. Corp., insecticide spray, (P.), B., 840.
- Heald, F. D. See Baker, K. F.
- Heald, W. L., factors which affect gas production during dough fermentation, B., 168.
- Healey, A. C. See Dorée, C.
- Healy, J. J., jun., and Dyer, C. P., [sodium] aluminate size [for paper], B., 423.
- Heany, J. A., and Sirian Lamp Co., cathode-coating composition, (P.), B., 875.
- Heap, T., action of heat on  $\beta$ -naphthylisopropylamine hydrochloride, A., 705.
- Heard, J. F., pressure effects in the spectra Xe I and Xe II, A., 1096.
- See also Harkness, H. W.
- Heard, R. D. II., synthesis of *dl*-3:4-dihydroxyphenyl-N-methylalanine, A., 608.
- Kinnersley, H. W., O'Brien, J. R., Peters, R. A., and Reader, V., vitamin-B, and adenine, A., 646.
- and Raper, H. S., oxidation of 3:4-dihydroxyphenyl-N-methylalanine with reference to its possible function as a precursor of adrenaline, A., 608.
- and Wynne, A. M., bacterial phosphatases. I. Decomposition of phosphoric acid esters by *Clostridium acetobutylicum*, Weizmann, A., 1333.
- Heastie, B., drying of solids, B., 1.
- Heat Treating Co. See Doherty, H. L., and Laird, W. G.
- Heath, C. S., and Electro Metallurg. Co., annealing process [for iron-chromium alloys], (P.), B., 591.
- Heath, C. W., Strauss, M. B., and Castle, W. B., quantitative aspects of iron deficiency in hypochromic anemia; parenteral administration of iron, A., 851.
- See also Muller, G. L.
- Heath, F. W., and Shell Development Co., refining of petroleum oils, (P.), B., 820.
- Heath, M. A., analysis of spent black liquors from the soda and sulphate pulping processes, B., 343.
- Heath, S. B., and Dow Chem. Co., solid mixed chlorides of magnesium and calcium in divided form, (P.), B., 60.
- Preparation in partially dehydrated form of metallic compounds normally containing water of crystallisation, [e.g., calcium chloride], (P.), B., 105.
- Calcium chloride, (P.), B., 146.
- Preparation of a mixed calcium chloride-calcium chlorate product, (P.), B., 146.
- Magnesium, (P.), B., 433.
- Preparation of partly dehydrated magnesium chloride, (P.), B., 547.
- Calcium chlorate, (P.), B., 828.
- Preparation of strong hydrogen halide gas, (P.), B., 865.
- Purification of calcium chlorate, (P.), B., 914.
- See also Barstow, E. O., and Hunter, R. M.
- Heathcoat, F., reactivity of coal: the "permanganate number," B., 256.
- and Wheeler, R. F., composition of coal; constitution of the ulmins, B., 131.
- Heathcote, R. St. A., pharmacological action of eseridine, A., 185.
- Heaton, W. B. See Trinidad Leaseholds, Ltd.
- Heberling, H., "catalysis" in mixed pigments, B., 198.
- Heberlein & Co., Akt.-Ges., treatment of artificial fibres, more particularly of artificial silk, (P.), B., 861. [Swelling] treatment of silk, (P.), B., 1054.
- Production of effects on silk, (P.), B., 1054.
- Hebl, L. E., Rendel, T. B., and Garton, F. L., effect of lead tetraethyl on octane number [of gasoline], B., 293.
- Hebler, W. O., and Engelhard, Inc., C., gas-analysis apparatus, (P.), B., 434.
- [Thermal-conductivity] gas-analysis apparatus, (P.), B., 576.
- Hebley, H. F., dedusting of coal, B., 658.
- Hechenbleikner, I., and Chem. Construction Corp., phosphoric acid, (P.), B., 59.
- Nitric acid from ammonia, (P.), B., 624.
- Catalytic apparatus, (P.), B., 944.
- Titlestad, N., and Chem. Construction Corp., [catalytic] converter, (P.), B., 768.
- See also Chem. Construction Corp.
- Hechler, R. See Lucke, H.
- Hecht, F., complete quantitative micro-analysis of Ceylon thorianites, A., 139.
- Quantitative mineral micro-analysis, A., 1260.
- and Reich-Rohrwig, W., quantitative complete microanalysis of uraninites, A., 366.
- See also Brantner, H.
- Hecht, G., pharmacology of "atebrin," A., 632.
- Hecht, H. See Stollé, R.
- Heck, J. E. See Mellon, M. G.
- Heckel, H., water-gas production in coke-oven chambers, B., 5.
- Active-charcoal and wash-oil benzols, B., 994.
- Reddish, W. T., and Kontol Co., treatment of petroleum emulsions, (P.), B., 615.
- Heckel, Herman, and Twitchell Process Co., flexible transparent gelatinous product, (P.), B., 1023.
- Hecker, M. See Schmidt, Erich.
- Hecking, A. See Stockhausen, H.
- Heckmaier, J. See Fischer, Hans.
- Heckmann, tests of gastric function. I. Studies of gastric juice by means of a protein-peptone solution, A., 968.
- Hequet, A., volumetric determination of zinc, A., 244.
- Adhesion in ply-wood industry, B., 320.
- Determination of fatty matter in organic substances, B., 353.
- Hezko, A., coke producer with withdrawal of the fused slag, B., 946.
- Hedalen, J., electrolytic plant of the Canadian International Paper Co., at Temiskaming, Que., B., 746.
- Hedberg, C. W. J., and Research Corp., conditioning gases for electrical precipitation, (P.), B., 752.
- Purification of blast-furnace gases, (P.), B., 752.
- See also Wiutermute, H. A.
- Hedde, R. G. See Young, T.
- Hedelius, E., and Reinius, E., electrolytes of high mol. wt., A., 459.
- Hedenström, A. von, and Kunau, E., iron thiocyanate reaction, A., 138.
- Hedges, E. S., electrical factors of colloid stability, A., 23.
- Liesegang rings, A., 346.
- Protection of iron and steel from corrosion, B., 192.
- Hedin, R. See Hedvall, J. A.
- Hedin, S. G., protein-synthesising enzyme in spleen, A., 636.
- Hedley, O. F. See Stimson, A. M.
- Hédon, L., creatinuria and muscular contraction, A., 631.
- Hedrick, R., apparatus for producing aggregates [by heating], (P.), B., 687.
- Hedvall, J. A., reactions in the solid state, A., 574.
- Hedin, R., and Andersson, E., "transition points" of bismuth and copper, A., 574.
- Heertjes, P. M., Coltof, W., and Waterman, H. I., determination of sp. gr. I. Sp. gr. of acetate silk, B., 541.
- Heesch, H., topologically equivalent crystal linkings, A., 450.
- Heesterman, J., and Waegeningh, J. E. H. van, food investigation with the aid of ultra-violet light, B., 170.
- Heffer, A. I. See Karatygin, W. M.
- Heffer, O. See Berl, E.
- Hegan, H. J. See Courtaulds, Ltd.
- Hégazi, E. See Battegay, M.
- Hegedüs, M., determination of sulphur in sphalerite and other minerals, B., 913.
- Heggie, R. G., crystallisation of ingots, A., 891.
- Hegland, J. M. A., titrimetric examination of opial, B., 445.
- Heibig, E., dialyser frame, (P.), B., 96.
- Heid, J. B., and Universal Oil Products Co., apparatus for hydrocarbon oil conversion, (P.), B., 52.
- Heide, C. von der, detection of fruit wine in grape wine by the sorbitol method of Werder and Zäch, B., 889.
- and Hennig, K., composition of grape and apple sweet musts and their arsenic, copper, and zinc contents, B., 1077.
- Determination of arsenic, phosphoric acid, copper, zinc, iron, and manganese in must and wine, B., 1077.
- and Mändlen, H., tables for determining the alcohol and extract contents of wine from the sp. gr. of alcohol-water mixtures and of sucrose solutions at 20°, referred to water at 4°, B., 1077.

- Heide, *R. von der, jun.* See Reif, *G.*
- Heidelberger, *M.*, and Kendall, *F. E.*, precipitin reaction; precipitating haptenes; species differences in antibodies, A., 867.
- Kendall, *F. E.*, and Hoo, *C. M. S.*, precipitin reaction; antibody production in rabbits injected with an azo-protein, A., 1317.
- and Menzel, *A. E. O.*, protein fractions of the H 37 (human) strain of tubercle bacillus, A., 318.
- and Palmer, *W. W.*, preparation and properties of thyroglobulin, A., 967.
- Heidenreich, *F.* See Pose, *H.*
- Heidenreich, *H.*, separating separate kinds from a mixture of solid bodies of different sp. gr., (P.), B., 992.
- Heider, *A.* See Schmalfuss, *Hans.*
- Heidinger, *W.* See Goldschmidt, *S.*
- Heidt, *L. J.*, and Forbes, *G. S.*, absorption and fluorescence spectra of acid sulphates of quinine and ten of its derivatives in water and aq. sulphuric acid solution, A., 885.
- Kistiakowski, *G. B.*, and Forbes, *G. S.*, anomalous decomposition of ozone in presence of chlorine, A., 237.
- See also Forbes, *G. S.*
- Heiduschka, *A.*, and Flotow, *E.*, determination of alcohol in blood, A., 744.
- and Graefe, *L.*, edible bird's-nests, A., 743.
- and Häbel, *H.*, nutmeg fat, B., 236.
- and Schmidt, *Wilhelm*, rennin, A., 426.
- and Segl, *J.*, decomposition of pentosans in fermentation of beer wort with yeast, B., 984.
- and Thomas, *H.*, detection of coffee substitutes, B., 331.
- Heil, *L. M.*, and Edwards, *J. E.*, measurement of X-ray absorption coefficients by use of the FP-54 plicotron, A., 213.
- Heilbron, *I. M.*, Heslop, *R. N.*, and Howard, *G. F.*, styrylpyrylium salts. XV. Production of  $\alpha$ -benzopyrones by the Kostanccki reaction, A., 1169.
- Heslop, *R. N.*, and Irving, *F.*, styrylpyrylium salts. XIV. Colour phenomenon associated with benzonaphtho- and dinaphtho-spiropyranes, A., 614.
- Morrison, *A. L.*, and Simpson, *J. C. E.*, sterol group. XVII. Unsaturated centres in ergosterol, A., 500.
- Samant, *K. M.*, and Simpson, *J. C. E.*, sterol group. XVIII. Attempt to define the position of the hydroxyl group in ergosterol, A., 1290.
- and Simpson, *J. C. E.*, hydroxyl group in ergosterol and cholesterol, A., 501.
- Simpson, *J. C. E.*, and Spring, *F. S.*, structure of the sterols and bile acids, A., 820.
- and Wilkinson, *D. G.*, oxidation products of 1:2:5-trimethylnaphthalene, A., 64.
- See also Davies, *R. L.*, Gillam, *A. E.*, and Watson, *S. J.*
- Heiligenstaedt, *W.*, calculations for soaking pits [for steel]. I. and II., B., 868, 919.
- Heiling, *A.*, influence of gaseous impurities of the atmosphere on plant transpiration and a method of measuring transpiration rates, A., 647.
- Heilmeyer, *L.* See Rudert, *H.*
- Heim, *J. W.*, chemical composition of lymph from subcutaneous vessels, A., 848.
- See also Fairhall, *L. T.*
- Heimann, *F.*, administration of bilirubin to herbivorous animals under normal and pathological conditions, A., 977.
- See also Boenheim, *F.*
- Heimann, *H. L.* See Watt, *J. M.*
- Heimath, *B.*, presence of sulphuric acid in acid forest humus, B., 882.
- Heimer, *A.*, and Heimer, *T.*, band spectrum of copper hydride, A., 880.
- Heimer, *T.*, investigation of the hydrocarbon band at 3143 Å., A., 6.
- See also Heimer, *A.*
- Heimes, *F.*, and Pivovarsky, *E.*, tests on cast iron on a new wear-testing machine, B., 629.
- Hein, *B. J.*, calcinosis universalis, A., 970.
- Hein, *F.*, and Pauling, *H.*, conductivity and state of electrolytes dissolved in metal alkyls, A., 907.
- See also Spaght, *M. E.*
- Hein, *F. J.* See Ream, *H. S., jun.*
- Hein, *H.*, composition of liquid phase in Portland cement standard mixture, B., 148.
- See also Engelhardt, *V.*
- Hein, *R.* See Orthner, *L.*
- Hein, *W. O.* See Lapin, *L. N.*
- Heinbecker, *P.*, ketosis during fasting in Eskimos, A., 306.
- Heindl, *R. A.*, thermal expansion of refractories [heated] to 1800°, B., 829.
- Heinecke, *H. M. E.* See Western Electric Co.
- Heineman, *R. E. S.*, Cruz del Aire meteorites, A., 45.
- Heinemann, *M.*, cytogenin and "mitogenetic radiation" of blood, A., 301.
- Heinicke, *A. J.*, air chamber for studying photosynthesis under natural conditions, A., 925. Apparatus for making autographic records of catalase activity of plant tissues, A., 1214. Nitrogen supply for young apple trees growing in leguminous and non-leguminous sod, B., 164.
- and Hoffman, *M. B.*, apparatus for determining absorption of carbon dioxide by leaves under natural conditions, A., 327.
- Heinisch, *O.*, determination of germinative power of physiologically unripe barley, B., 1028.
- Heinle, *R. W.*, and Bing, *F. C.*, nutritional anemia of the rat. VIII. Determination of haemoglobin and erythrocytes on a single sample of blood, A., 970.
- Heinlein, *E.*, cast bodies from masses consisting of [moist] cement or concrete, (P.), B., 149.
- Heinlein, *H.* See Terbrüggen, *A.*
- Heinrich, *C.*, phosphoric acid, B., 913.
- Heinrich, *F.* See Schwartz, *R.*
- Heinrich, *R.* See Westinghouse Electric & Manufg. Co.
- Heinrichs, *W.* See Pivovarsky, *E.*
- Heins, *C., jun.* See Wiebe, *R.*
- Heintz, *G.* See Wagner, *Hans.*
- Heintz, *L.*, hot-water treatment of hops, B., 487.
- Heinz, *E.*, glass, (P.), B., 670.
- Heinz, *K.* See Eimer, *K.*
- Heinz, *W.* See Krügel, *C.*
- Heinze, *B.*, German oil [soya] beans, B., 759.
- Heinze, *E. P. A.*, possibilities of hydrogen as a fuel, B., 417.
- Heinze, *H.* See Strauss, *F.*
- Heinze, *R.*, production of town's gas from brown coal, B., 531.
- Heise, *G. W.*, and Nat. Carbon Co., [anode of] primary battery, (P.), B., 273. Electric [primary] cell, (P.), B., 396. Primary cell and electrolyte therefor, (P.), B., 396.
- Heise, *I.* See Schmalfuss, *Hans.*
- Heisenberg, *W.*, structure of atomic nuclei. III., A., 335.
- Heiser, *F.* See Schnelle, *F.*
- Heiser, *H. D.* See Mutersbaugh, *G. H.*
- Heiser, *H. W.*, and Aluminum Co. of America, [soluble] barium aluminate, (P.), B., 547.
- Heisig, *G. B.*, action of bromine and butadiene, A., 486. Action of radon on unsaturated hydrocarbons. III. Vinylacetylene and butadiene, A., 793.
- and Hurd, *C. D.*, vapour pressure and b.p. of methylacetylene, A., 1006.
- Heiting, *T.*, nuclear excitation by hard  $\gamma$ -rays, A., 1100.
- Heitler, *W.*, semi-classical theory of chemical binding, A., 11. Contour of spectral lines excited by electron collision, A., 656.
- Heitz, *W.* See Ruggli, *P.*
- Heitzman, *J. L.*, and Peiper, *A. S.*, testing [concrete] for diatomaceous earth, B., 707.
- Hejemann, *R.*, [enamelled gold alloy] dental crowns, etc., and materials therefor, (P.), B., 69.
- Helberg, *E.*, determination of caffeine and extract in coffee, B., 1081.
- Helbig, *A. B.*, formulae for control of air separation, B., 447.
- Helbrung, *F.* See Langenbeck, *W.*
- Held, *A.*, low excretion of nitrogen and rise of basal metabolic rate in hypertonus, A., 1071.
- Held, *N. A.*, rate of settling of a suspension as a function of the concentration of the suspensoid, A., 1115.
- Helder, *H. A.*, and Champion Fibre Co., preparation of refined [uniformly] bleached pulp, (P.), B., 825.
- Hele, *T. S.* See Pirie, *N. W.*
- Hele-Shaw, *H. S.* See Stream-Line Filter Co.
- Helfaer, *B. M.*, and Nat. Aniline & Chem. Co., purification of R acid [ $\beta$ -naphthol-3:6-disulphonic acid], (P.), B., 908.
- Helferich, *B.*, specificity of emulsin, A., 1202. Glucosides of phenols and substances containing phenolic hydroxyl groups, (P.), B., 893.
- Appel, *H.*, and Gootz, *R.*, emulsin. X., A., 379.
- Heyne, *H.*, and Gootz, *R.*, emulsin. IX., A., 425.
- and Lang, *O.*, emulsin. XI., A., 635.
- Lang, *O.*, and Schmitz-Hillebrecht, *E.*, glucosidic azo-dyes, A., 1286.
- and Peters, *O.*, glucosides of *p*-nitro- and *p*-amino-phenol and their fermentative fission, A., 1286.
- and Schmitz-Hillebrecht, *E.* [with Günther, *E.*, Strass, *F.*, Peters, *O.*, and Petersen, *S.*], synthesis of phenolic glucosides, A., 379.
- and Sparmberg, *G.*, crystalline 6- $\beta$ -D-galactosido-D-glucose, A., 699.
- and Winkler, *S.*, syntheses of  $\alpha$ - and  $\beta$ -phenyl-D-mannoside, A., 1278.
- See also Fredenhagen, *K.*
- Helium Co. See Bottoms, *R. R.*
- Hell, *O.*, pitched plate-chips, B., 681.
- See also Fink, *H.*
- Hellberg, *S.*, white-water surveys in a fine paper mill, B., 102.

- Hellbom, K., and Westgren, A., crystal structure of rhombic chromium carbide, A., 1003.
- Heller, A., determination of hydrogen chloride in air, B., 16.  
See also Lehmann, H.
- Heller, G., alkali-fastness of patent-blue dyes, A., 62. Isatide and isatol, A., 167. Indophenine. II., A., 288.
- Heller, H., camelino oil, B., 718.
- Heller, H. A. See Meulen, P. A. van der.
- Heller, J., metamorphosis of insects. VIII. Role of haemolymph in metabolism of butterfly pupae, A., 88.
- Heller, K., and Patzelt, G., determination of halogens in organic substances by Gasparini's method, A., 1314.
- Heller, P. A., heat treatment of grey cast iron, B., 469.  
See also Jungbluth, H.
- Heller, W., and Zocher, H., transverse magneto-optic anisotropy of some colloidal solutions. I., A., 461.
- Hellerman, L., Perkins, M. E., and Clarke, W. M., urease activity as influenced by oxidation and reduction, A., 1332.
- Hellmann, H., quantum mechanics of chemical valency, A., 664. Kinetic electron energy and interatomic forces, A., 1101.
- Hellmann, O., furnaces for distilling or coking fuel, (P.), B., 1043.
- Hellmers, J. H., and Köhler, Richard, refractive index of agriculturally important compounds and changes under the influence of potassium chloride, A., 693.
- Hellstrom, B., decay and repair of concrete and masonry dams, B., 966.
- Hellstrom, G. L. M., digester circulation methods, B., 142.
- Hellström, H., relations between constitution and spectra of porphyrins; fluorescence of aetioporphyrin, A., 724. and Burström, D., ratio of chlorophyll-*a* to chlorophyll-*b* in mutants defective in the pigment, A., 545.  
See also Euler, H. von, Karrer, P., and Myrbäck, K.
- Hellström, N., reactivity of thiol group. II., A., 259. Bromometric determination of sulphido-acids, A., 1036.
- Helm, E., determination of foam [in beer], B., 808.
- Helmer, E. See Brecht, W.
- Helmer, O. M., Fouts, P. J., and Zerfas, L. G., gastric juice in pernicious anemia, A., 851. Increased potency of liver-extract by incubation with human gastric juice, A., 1069. Gastro-intestinal studies. II. Pancreatic enzymes in pernicious anemia, A., 1069.
- Helmert, E. See Maschmann, E.
- Helmrode, W., testing combustible fluids, (P.), B., 775.
- and Mardles, E. W. J., lubricating oils, (P.), B., 952.
- Helms, W., feeding trials with fish meal for calves and milch cows. I. Trials with calves, B., 844.  
and Malkomesius, P., feeding trials with fish meal for calves and milch cows. II. Influence of herring meal on properties, quantity, and composition of milk and on live-weight of cows, B., 844.
- Helps, G. See Humphreys & Glasgow, Ltd.
- Helwig, E. L., thiocyno-derivatives, (P.), B., 220.  
and Röhm & Haas Co., separation of ketoses from mixtures, (P.), B., 905.
- Helwig, G. V., structure of potassium dithionate and measurement of integrated reflexion from a small crystal, A., 13.
- Helz, M. K. See Scott, E.
- Hemelryck, J. van, producer gas free from tarry matter, (P.), B., 376.
- Hemeon, W. C. L., and Rockland & Rockport Lime Corp., lime product [plaster], (P.), B., 270.
- Hemm, C. See Dunlop Rubber Co.
- Hemmeler, A., and Sette, N.,  $pH$  values in sulphurous waters from the [Italian] Marche, A., 1028.
- Hemmer, L., demulsification of mineral lubricating oils, B., 819.
- Hemmi, F., and Tsukitani, N., non-fermentable reducing sugar in koji extract. II., A., 990.
- Hemmi, T., relation of environmental factors to the occurrence and severity of blast disease in rice plants, B., 982.
- Hemmingsen, A. M., accuracy of insulin assay on white mice. I. and II., A., 642, 985.  
and Marks, H. P., influence of temperature in assay of insulin by means of convulsions in mice, A., 643.
- Hemmingway, A., and Arnow, E. L., amplified ballistic method for measurement of glass electrode *c.m.f.*, A., 926.
- Hempel, A., phenols [from arylsulphonic acids], (P.), B., 218.
- Hemperly, C. See Nelson, J. M.
- Henderson, E. L., effects of molybdenum and chromium on malleabilisation of white cast iron, B., 192.
- Henderson, E. P., triplite from La Rioja Province, Argentina, A., 1029.
- Henderson, B. W., factors involved in malformation of the bones of growing chickens. I. Value of egg-yolk and chicken fat, A., 1072.
- Henderson, J. E., and Gideon, (Miss) E., cathodic disintegration of platinum by mercury ions, A., 550.
- Henderson, K. See King, R. H.
- Henderson, L. M., Ferris, S. W., and Atlantic Refining Co., motor fuel, (P.), B., 420.
- Henderson, M. C., disintegration of lithium by protons of high energy, A., 205.
- Henderson, R. G., increasing resistance of tobacco ring-spot virus to ageing by use of phenol, B., 566.
- Henderson, V. E., and Roepke, M. H., mechanism of salivary secretion, A., 412. Local hormonal mechanism of parasympathetic excitation, A., 1208.
- Henderson, W. F., and Visking Corp., dehydrated cellulose bung, tube, etc., (P.), B., 503.
- Hendricks, S. B., carbon with metallic lustre; new form of carbon? A., 12. *p*-Chlorobromobenzene and its congeners: variate equivalent points in molecular lattices, A., 216.
- Deming, W. E., and Jefferson, M. E., refractive indices of ammonium nitrate, A., 448.  
and Jefferson, M. E., optical anisotropy of molecular crystals. I., A., 1104.  
See also Hettich, A., Markley, K. S., Merz, A. R., and Southard, J. C.
- Hendrix, J. P. See Bordley, J. P.
- Hendry, F. W. F. See Knowles, F.
- Hendry, G. W. See Lorenz, F. W.
- Hendrych, F., and Mori, S., oxidation of iron in the blood, A., 1196.
- Hendschel, A. See Fischer, Hans.
- Hene, E., sulphocyanide compounds, (P.), B., 189.
- Hene, W. See Remy, H.
- Hengstenberg, O., and Naumann, P., double nitro-nitrogenising [case-hardening of steel], B., 790.
- Henke, C. O., Etzel, G., and Newport Industries, Inc., preparation of retene, (P.), B., 662.  
and Newport Industries, Inc., preparation of rosin decomposition product, (P.), B., 157. Hydrogenated rosin product, (P.), B., 1021.  
See also Du Pont de Nemours & Co., E. I.
- Henkel, P. See Klemm, W.
- Henkel & Co. G.m.b.H., transparent soap, (P.), B., 556. Anti-freezing agents, (P.), B., 608. Solid products containing alkali hypochlorite, (P.), B., 625. Floor polishing compositions, shoe creams, etc., (P.), B., 798. Preventing formation of lumps during swelling of solution of organic powders, (P.), B., 808. Disinfectants and disinfectant detergents, (P.), B., 814. Alkali or alkali-alkaline-earth silicates, (P.), B., 828. Manufacture of alcohols [by hydrogenation of mixed organic-inorganic acid anhydrides], (P.), B., 855. High-molecular organic thio-sulphates, (P.), B., 906. Mixed anhydrides of boric and organic acids, (P.), B., 954. Preparations for care of the teeth and mouth, (P.), B., 1088.  
See also Haake, J. W.
- Henley's Telegraph Works Co., Ltd., W. T., and Tunstall, H. A., hard or highly viscous [electrical insulating] materials, (P.), B., 26.
- Hennaut-Roland, (Mmc.) physical constants of *o*- and *m*-nitrotoluene, A., 386.  
See also Timmermans, J.
- Henne, A. L. See Frigidaire Corp., and Midgley, T., jun.
- Henneberg, W., scattering of electrons by heavy atoms, A., 881.
- Hennel, W., poisoning of platinum catalysts in oxidation of ammonia, A., 235. Theory of absorption towers. I. Theoretical solution of the general case. II. Absorption of nitrogen peroxide in sodium carbonate solution, B., 495, 527.
- Hennig, K. See Heide, C. von der.
- Henning, A., application of halogen derivatives of hydrocarbons with particular reference to methyl bromide, B., 580.
- Henning, F., and Wensel, H. T., f.p. of iridium, A., 894.
- Henninger, A. H. See Gen. Chem. Co.
- Henninger, R. C., drying of beet pulp with waste flue gases, B., 886.
- Hennings, O., filter, (P.), B., 689.
- Hennion, G. F., Hinton, H. D., and Nieuwland, J. A., organic reactions with boron fluoride. IV. Ether cleavage in presence of organic acids, A., 932.
- Henri, V. See Bacq, Z. M.
- Henrici, M., cystine and sulphur content of bushes and grasses in a Karroid area (Fauresmith), A., 545.
- Henriksen, A., and Continental Oil Co., dewaxing of oils, (P.), B., 996.  
See also Davis, L. L., and Miller, W.
- Henrion, J. See Bourgeois, E.
- Henriques, H. J., distribution coefficients of monocarboxylic acids and esters between immiscible solvents, A., 1009.  
and Cornish, R. E., attempt to separate isotopes by reversible fractional distillation, A., 550.

- Henriques, O. M., detection of a complex compound of carbon dioxide and haemoglobin in blood, A., 622. Colorimetric micro-titration of bases in non-aqueous solvents. I, A., 654.
- Henriquez, P. C. See Böeseken, J.
- Henry, C. R. See Jones, H. D.
- Henry, D. C., and Brittain, J., cataphoresis. 111. Comparison of results of measurements by the transport and moving boundary methods, and theory of the latter method, A., 778.
- Henry, D. E. See Rentschler, H. C.
- Henry, I. W., and Ionizing Corp. of America, treatment [conversion] of hydrocarbons, (P.), B., 852.
- Henry, J. See Sanfourche, A.
- Henry, K. M. See Emslie, A. R. G.
- Henry, T. A., alkaloids of *Picralima Klaineana*, Pierre. II., A., 77.
- See also Groothoff, A.
- Henry, W. C., and Barbour, A. D., beating properties of egg-white, B., 986.
- Henry, W. F. See Rodebush, W. H.
- Hensel, F. R., and Larsen, E. J., A3 point of highly purified iron, A., 452. Metallurgy of variables in arc-welding, B., 67.
- Hensel, G., diastase content of saliva of premature infants, A., 972.
- Hensel, L. See Peyer, W.
- Henshaw, D. M. See Cooper, C., and Holmes & Co., W. C.
- Henstock, H., identification of alcohols in dilute aqueous solution, A., 372. Calcium acetate gels, A., 1244.
- Henwood, A., and Garey, R. M., suppression of sulphuric acid mist in Kjeldahl determinations, A., 136.
- Henze, H. R., and Blair, C. M., number of structurally isomeric hydrocarbons of the ethylene series, A., 371.
- and Murchison, J. T., *n*-butyl  $\alpha$ -substituted-ethyl ethers, A., 1273.
- See also Coffman, D. D.
- Henze, M., vanadium chromogen of *Ascidia* blood, A., 174.
- and Müller, R., preparation of the ketol  $C_{12}H_{18}O_2$  and of methylglyoxal, A., 377.
- See also Stöhr, R.
- Hepburn, D. McK., Sadtler, S. S., Cayo, E. F., and Amiesite Asphalt Co. of America, binding material for mineral aggregates of pavements and its use, (P.), B., 63.
- Hepburn, J. S., constituents of blood in health and disease, A., 85.
- Hepburn, T. F. G., technique of the glass electrode, A., 689.
- Hepher, W. S., and Jahn, E. C., action of ammonium sulphite on white fir, B., 56.
- Hepner, B., and Frenkenberg, S., 5-substituted derivatives of 3-phenyl-1-methyl-barbituric acid, A., 837.
- Hepner, M., mechanical analysis of coke, B., 946.
- Hepner, T., and Otta, B., identification of the inclusions of steel, B., 967.
- Hepp, H. J. See Frey, F. E.
- Heppenstall, T. E., and Hauff, H. A., moisture content measurements [of pulp and paper], B., 620.
- Hepworth, F., tubular heat-exchange apparatus, (P.), B., 371, 768.
- Heraeus Ges.m.b.H., W. C., articles from the noble metals and their alloys, (P.), B., 69.
- Heraeus-Vacuumschmelze Akt.-Ges., and Rohn, W., [three-phase] induction furnaces, (P.), B., 25. Induction furnaces, (P.), B., 72. Chromium, (P.), B., 473. [Chromium] alloys, (P.), B., 874.
- Herasyemenko, P., Pech, J., and Pobofil, F., relation between constitution of certain chromium alloys [cast irons] and their rate of solution in hydrochloric acid, B., 968.
- and Pobofil, F., molecular compounds in liquid steel and their influence on deoxidation equilibria, A., 1111.
- See also Šlendyk, J.
- Herbain, M. See Fiessinger, N.
- Herbecq, A. See Soc. Industr. de Moy.
- Herberholz, A., small consumers of coke-oven gas in the iron industry, B., 629.
- Herbert, E. G., [hardening] treatment of metals, (P.), B., 110.
- Herbert, R. See Ault, R. G.
- Herbert, R. W., Hirst, E. L., Percival, E. G. V., Reynolds, R. J. W., and Smith, Fred., constitution of ascorbic acid, A., 1143.
- Herberts & Co., K., swelling and permeability to gases of films of [boiled linseed] oil, alone and with additions of rubber, chlorinated rubber, and tung oil, B., 237.
- Herbst, C. A., and Economy Fuse & Manufg. Co., heat-treating oven, (P.), B., 847.
- Hercules Glue Co. See Littooy, J. F.
- Hercules Powder Co., impregnation of materials for use in [low-density] explosives, (P.), B., 574.
- See also Babcock, L. W., Bacehus, T. W., Bont, L. N., Borglin, J. N., Boyd, N. C., Butts, D. C., Byrkit, R. J., jun., Crater, W. de C., Fisher, L. H., Humphrey, I. W., Johnston, A. C., Kaiser, H. E., Langmeier, A., Peters, G. H., Rankin, L. P., Rile, J. H., and Smith, L. T.
- Hercus, C. E., and Aitken, H. A. A., iodine and goitre problem in New Zealand, A., 526.
- Herd, C. W., methods of examining flour, with special reference to the effects of heat. II. Effects of heat on flour enzymes, B., 488.
- See also Kent-Jones, D. W.
- Héréguel, J., and Chaudron, G., sublimation of magnesium in a vacuum, and pouring it in argon, A., 239.
- Herfeld, H., and Gerngross, O., detection and determination of cobalt by 1-nitro- $\beta$ -naphthol, A., 1025.
- See also Gerngross, O.
- Herfs, A., destructive action of moths (*Dermestids*) and its prevention, B., 423.
- Hering, H., heterogeneous equilibrium of system  $CdI_2$ -KI- $H_2O$ , A., 906.
- Hérissey, H., easy method of extraction of glucosides, A., 328. Extraction of asperuloside from *Coprosma Baueriana*, Hook, A., 1344.
- Heritage, C. C., problem of classification of chemical pulps, B., 1032.
- and Nat. Aniline & Chem. Co., heat-abstracting, (P.), B., 207. Reduction of a nitro-compound by means of a metal, (P.), B., 1000.
- Heritsch, H., X-ray examination of garnet from the gorge of the Lieser near Spittal (Carinthia), A., 892. Minerals from the gorge of the Lieser near Spittal (Carinthia), A., 1137.
- Herlemont, H., and Delabre, J., determination of fluorine by Carnot's method, A., 686.
- Herles, F., polarimetric determination of sucrose in substances (chocolate, cacao powder, etc.) containing insoluble matter, B., 486.
- Herlinger, E., and Beck, P., melting process of chemically homogeneous masses, B., 1039. Relation between particle size and duration of melting or sintering of a ceramic mass, B., 1056.
- Herlitzka, L. See Battistini, S.
- Herman, B. X., determination of starch [in sized textiles], B., 863.
- Herman, J. L., and Keystone Steel & Wire Co., metal-coated iron or steel article, (P.), B., 834.
- Herman, L., absorption of oxygen in the ultra-violet, A., 759.
- Hermann, P. C., magnetic after-effects, A., 1005.
- Hermann, S., and Zentner, M., seasonal variations in the serum-calcium of rabbits, A., 1182.
- Hermann, Z. See Kittel, H.
- Hermano, A. J., and Anido, F., chemical and biological analyses of [rice-bran] tikitiki extracts, B., 444.
- Hermans, J. J. See Jorissen, W. P.
- Hermans, L. See Guéhen, G.
- Herns, W. B. See Michelbacher, A. E.
- Hern, G. See Harding, V. J.
- Herna, T. O. See Palomaa, M. H.
- Herndlhofer, E., enzymes of coffee plant, A., 105. Nephelometric determination of caffeine, A., 173. Amount and distribution of oxalic and malic acids in coffee plant, A., 544. Root respiration of young coffee plants, A., 757. Caffeine content of ripening and drying coffee, B., 763.
- Herndon, J. M. See Whitmore, F. C.
- Herner, M. C., and Robinson, A. D., leg-bone deformities in growing chicks. I. Deformities produced by high mineral rations, A., 530.
- Hernler, F., and Philippi, E., elementary composition of various haemocyanins, A., 622.
- Hernych, J., calibration of diffusion juice measuring tanks, B., 841.
- Herold, M., preparation and purification of alkaloids of ergot, B., 938.
- Herold, W., semi-acetal and hydrate formation of carbonyl and carboxyl derivatives, A., 1036.
- Herold Akt.-Ges. See Nottebohm, E.
- Herov, K. V., Aliamovski, N. I., and Kinzerski, I. E., [determination of phosphate in soil], B., 483.
- Herrera, J. J., and Bermejo, L., reactions of organic sulphur compounds. II, B., 819.
- See also Bermejo, L.
- Herrero, G., influence of carbon disulphide on the solubility of iodine in water, A., 456. Partition coefficient of iodine between water and ethylene dibromide and nitrobenzene, A., 773. Hantzsch-Landau rule, A., 1009.
- Herrick, G. W., and Griswold, G. H., naphthalene as fumigant for immature stages of clothes moths and carpet beetles, B., 653.
- Herring, E. See Ginnings, P. M.
- Herlein, F. See Treibs, A.
- Herrmann, Elfriede. See Becher, E.
- Herrmann, Erwin. See Hüttig, G. F.
- Herrmann, F. See Schroeder, H.
- Herrmann, H. See Fürth, O.
- Herrmann, K., inclinations of molecules in crystalline-fluid substances, A., 1107.
- Herrmann, K. (Berlin-Charlottenburg), and Gerngross, O., elasticity of rubber, B., 79.



- Herrmann, K. (Schwenning), incrustations and corrosion in water-mains of the town of Schwenning, B., 46.
- Herrmann, Karl. See Binz, A.
- Herrmann, R. See Mach, F.
- Herrmann, Roland. See Schöpf, C.
- Herrmann, Walter. See Streitwolf, K.
- Herrmann, Wilhelm, heat-resistant special alloys (nickel-chromium-iron), B., 709.
- Herrmann, W. O., Baum, E., and Consort. für Electrochem. Ind., preparation of unsaturated hydrocarbons, (P.), B., 954. Oxidation of organic substances; [preparation of formaldehyde from acetaldehyde], (P.), B., 954.
- Herrmann, Z. See Kittel, H.
- Herrmuth, E. See Chem. Fabr. Kalk G.m.b.H.
- Herroun, E. F. See Hallimond, A. F.
- Hersant, E. F., and Linnell, W. H., stability of ergot preparations, B., 732.
- Herschman, H. K., and Basil, J. L., white-metal bearing alloys: mechanical properties at different temperatures and service tests, B., 271. "Tin-free" leaded bearing bronze, B., 672. [Lead-copper bearing] metal alloy, (P.), B., 924.
- Hersey, M. D., thin film lubrication of journal bearings, B., 607.
- Hersberg, E. B., and Huntress, E. H., automatic pressure regulators for vacuum distillation. II. Sulphuric acid as a manostat fluid, A., 1136. See also Huntress, E. H.
- Hershey, J. W., components of the atmosphere and synthetic gases in relation to animal life, A., 409. Synthetic atmospheric mixtures of carbon dioxide and oxygen in relation to animal life, A., 844.
- Herstad, O., contact angle measurements. II., A., 774.
- Herstein, K. M., microchemical detection and determination of metals [for textile purposes], B., 742.
- Herszinkiel, H., number of electrons expelled by action of hard  $\gamma$ -rays, A., 110. and Birenbaum, M., photographic method of study of phenomena of adsorption of radioactive elements, A., 899.
- Hertel, E., and Demmer, A., limits of admissibility of co-ordinative and constitutional inferences from the composition of crystalline phases, A., 27. and Römer, G. H., X-ray investigation of a case of chemoisomerism, A., 116. Crystal structure of phenyldiphenyl, A., 666. Fine structure of trinitrobenzene derivatives, A., 1004. Crystal structure of a new type of molecular compound, A., 1004.
- Hertel, E. C., Pelzer, H. L., and Gray Processes Corp., cracking of hydrocarbons, (P.), B., 138, 539. and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 295, 378, 456, 854. Operation of pressure stills [for hydrocarbons], (P.), B., 378. Tift, T. de C., and Sinclair Refining Co., cracking of hydrocarbon oils, (P.), B., 295. See also Campbell, O. F.
- Hertz, G., method of separation of isotope mixtures and its application to isotopes of neon, A., 4, 110.
- Hertzog, E. S., application of ash-correction formulae to Alabama coals, B., 450.
- Hervieux, C., chromogens of indoxyl type in human sweat, A., 301.
- Herwerden, M. A. van, increased permeability [of larvæ] to acetic acid in narcosis, A., 420.
- Herz, B., effect of diet on calcium and phosphorus content of human milk, A., 969.
- Herz, E. von, igniting charges for detonating and percussion caps, (P.), B., 125. Non-erosive priming, B., 492. Modern large-scale production of lead azide, B., 605. and Remington Arms Co., priming mixture, (P.), B., 285.
- Herzberg, G., band spectrum, predissociation, and structure of the  $P_2$  molecule, A., 199. and Kölsch, R., ultra-violet absorption of amino-group and other groups in simple gaseous molecules, A., 997. and Teller, E., vibrational structure of electron transitions in polyatomic molecules, A., 766. See also Curry, J.
- Herzberg, L., new band system of beryllium oxide and structure of the BeO molecule, A., 997.
- Herzen, G. M. See under Monod-Herzen, G.
- Herzfeld, E., colorimetric determination of true glucose content of body-fluids, A., 175. and Frieder, A., catechin (inhibitory substance) of the thyroid gland and its therapeutic use in exophthalmic goitre, A., 1190.
- Herzfeld, K. F., and Lee, R. H., forced double refraction, A., 1232.
- Herzog, Alfred, iron-containing component of blood-pigment; its combination with globin to give hemoglobin, A., 622. Prosthetic group of blood-pigment, its isolation in crystalline form, and its conversion with native globin into hemoglobin, A., 1180. Crystallised synthetic carboxyhemoglobin, A., 1180.
- Herzog, Alois, cyanine in fibre analysis, B., 55.
- Herzog, E., reduction products of vat dyes, B., 823. Protection of iron in aerated salt solutions by cathodic deposits, B., 920. and Chaudron, G., corrosion tests for metals, B., 22. Corrosion of aluminium-magnesium alloys by seawater, B., 832. See also Gen. Electric Co.
- Herzog, G., absolute determination of scattering intensity of Cu  $\alpha$  radiation in argon, A., 993.
- Herzog, J., and Tietz, H., determination of camphor and alcohol in spirit of camphor, B., 1035.
- Herzog, R. O., linear and laminar fine structures, A., 14. and Hoffmann, Hellmut, foam-like masses [from viscose], (P.), B., 143. and Koref, F., ageing phenomenon in gelatin layers and its prevention, A., 226. Kratky, O., and Petertil, E., shaking effect in cellulose solutions and other sols detected by means of Tyndall light, A., 226. and Kudar, H. C., vitreous state, A., 115. Kinetic theory of liquids, A., 344. Viscosity of homogeneous liquids, A., 770. Viscosity of liquid crystals, A., 1110.
- Herzog, R. O., Kudar, H. C., and Paersch, E., effect of electrostatic fields on the viscosity of liquids, A., 1110. and Weindling, J., action of resorcinol on silk fibroin. I., A., 730.
- Herzog, W., phenolphthalein as basis for new class of artificial resins, B., 199.
- Herzogenrath, H. See Silten, E.
- Herzogenrather Glaswerke Biecheroux & Co. G.m.b.H., drying of glass-melting pots and other articles made from plastic material, (P.), B., 255.
- Hese, H., investigations in the Schumann region. I. Schumann spectrograph for precision measurements, A., 552.
- Heslop, R. N. See Heilbron, I. M., and Howard, G. F.
- Hess, A. B., powdered activated carbon used without filtration [of a water supply], B., 654.
- Hess, A. F., and Benjamin, H. R., calcium and inorganic phosphorus in human and cow's milk, A., 1187. Goss, J., Weinstock, M., and Berliner, F. S., calcium and phosphorus content of brain in experimental rickets and tetany, A., 86. See also Benjamin, H. R.
- Hess, E. M., and Bretschneider, F., high-temperature fermentation, B., 203.
- Hess, H. H., hydrothermal metamorphosis of an ultra-basic intrusive at Schuyler, Virginia, A., 1268.
- Hess, K., cellulose. I. Formation of a homogeneous [bromodiacetyl]diethyl-glucose from partly ethylated cellulose, A., 1280. and Littmann, O., anhydride formation of 2:3:6-trimethylglucose. I. and II., A., 596, 1278. Littmann, O., and Pfeiffer, R., starch. V. Degradation of starch tri-*p*-toluenesulphonate and 6-iododi-*p*-toluenesulphonate with hydrogen bromide-acetic acid, A., 1279. and Ljubitsch, N., cellulose. LI. Esterification of cellulose with *p*-toluenesulphonyl chloride in presence of pyridine, A., 1280. and Pfeiffer, R., starch. IV. Starch tri-*p*-toluenesulphonate, 6-iododi-*p*-toluenesulphonate, and tribenzoate, A., 1279. Pfeiffer, R., and Trogus, C., starch. III. Swelling of potato starch in pyridine-water, A., 1279. and Rabinovitch, B., [highly-polymerised compounds; dependence of the viscosity of cellulose solutions on temperature], A., 149. Cinematographic swelling analysis in the dark field by means of the micro-manipulator. I. Mechanism of swelling of cellulose threads, starch grains, and similar structures, A., 1117. and Schwarzkopf, O., determination of distribution in gel reactions, A., 466. X-Ray fibre diagram as a quantitative measure of change in structural units of cellulose fibre caused by chemical processes, A., 666. X-Ray investigation of proteins. II. Gelatin, A., 893. Trogus, C., and Dziengel, K., cellulose. XLVII. Relation between cellulose and cellulose-dextrins. II. Crystallisation of cellulose nitrate, A., 380.

- Hess, K., Trogus, C., Evoking, W., and Garthe, E., cellulose. XLIX. Mode of reaction of cellulose. II. Mechanism of methylation of cellulose fibres; formation of a hemimethylcellulose, A., 1280.
- Trogus, C., and Schwarzkopf, O., alkali cellulose. II. Application of phase theory to gel reactions, A., 25.
- Trogus, C., and Ullmann, M., modifications of F. Schardinger's  $\alpha$ -dextrin, A., 700.
- and Ullmann, M., osmometric investigation of dilute solutions of polymeric carbohydrates. IV. Mol. wt. of crystalline cellulose acetate II., A., 939.
- See also Dziengel, K., Trogus, C., and Ullmann, M.
- Hess, R. W. See Moses, F. G.
- Hess, V. F., and Steinmaurer, R., solar activity and cosmic rays, A., 1100.
- Hess, W. C., and Sullivan, M. X., *o*-benzoquinone test for cysteine, A., 151.
- See also Sullivan, M. X.
- Hesse, E., and Jacobi, K. R., detoxication of the thyroid hormone, A., 1209.
- Jacobi, K. R., and Bregulla, G. [with Dickmann, H., and Nagel, R.], detoxication of thyroid hormone. I., A., 539.
- and Nawrath, K., effect of alkaline water on purine metabolism, A., 1195.
- and Reihel, H., biological assay of analgesics and their mixtures. III., A., 421.
- Vonderlinn, H., and Zeppmeisel, L., detoxication of thyroid hormone. II., A., 1337.
- Hesse, F. See Kindler, K.
- Hesse, T. See Lange, E.
- Hesse, W. See Danneel, H.
- Hessel, K., preservation of fruits, vegetables, and other organic, especially medicinal, substances, and dried fruits, (P.), B., 1083.
- Hessen, R. See Nowack A.-G., A.
- Hessenbruch, W., vacuum-melted beryllium alloys, B., 1013.
- and Horst, E., resistance to inter-crystalline corrosion of acid-resistant and hardenable chromium-nickel alloys, B., 1015.
- and Rohn, W., life tests on high-grade nickel-chromium alloys, B., 1015.
- See also Grunert, A.
- Hessenland, M., Fromm, F., and Saalman, L., application of chlorates as weed-killers. IV. Chlorate solutions containing chlorides, B., 884. Action of chlorate, bromate, and iodate on plant growth, B., 934.
- Hessert, F. von. See Beck, W.
- Hessle, E. T., and Mid-West Chem. Co., [sulphur-hydrocarbon] insecticides, (P.), B., 728.
- Hessling, G. von. See Adiekes, F.
- Hester, E. E., and Davy, E. D., alkaloids of *Datura innoxia*, Miller, B., 764.
- Hester, J. B., interrelation of electrokinetic behaviour and cation exchange of iron phosphate, A., 564.
- and Shelton, F. A., seasonal variation of pH in field soils—a factor in making liming recommendations, B., 643.
- See also Mattson, S.
- Hetherington, A. C. See Imperial Chem. Industries.
- Hetherington, D. C., and Tompkins, E. H., fixation of tissues vitally stained with trypan-blue, A., 290.
- Hetherington, J. A., and Masson, I., mode of studying nitration, A., 267.
- Hetlor, D. M. See Varney, P. L.
- Hetmann, Z. See Nikulin, M.
- Hettche, H. O. See Dresel, E. G.
- Hettieh, A., and Hendricks, S. B., molecular rotation in solid ammonium chloride, A., 768.
- Hettner, G., Pohlman, R., and Schumacher, H. J., characteristic oscillations of ozone in the range 9–20  $\mu$ , A., 763.
- Hetzel, K. W., "Dega" carbon monoxide indicator, A., 798.
- Hetzer, evaluation of foam-producing and wetting-out materials and detergents, etc., B., 974.
- Heubach, U. See Dykins, F. A., and Weitz, E.
- Heublyum, R., copper vessels for Twitchell saponification, B., 275. Refining of castor oil, B., 315. Sulphur-treated varnishes and their preparation, B., 638. Oil recovery during the pre-heating [cooking] of the seeds (Skipin process), B., 974.
- Barlas, M., Klyachko, M., and Zevalina-Blokh, A., preparation of diacetyl by fermentation, A., 983.
- Heubner, W., and Schübel, K., vitamin content of commercial vitamin-A and -D preparations, B., 331.
- and Silber, W., assay of antipyretics; comparison of an optically active antipyretic with its racemate, A., 422.
- Heuer, R. P., refractory [silica] brick, (P.), B., 589.
- and Gen. Refractories Co., dense mix for refractories and its preparation, (P.), B., 107. Refractory brick, (P.), B., 788.
- Heukelekian, H., conditions affecting value of thermophilic seed sludge, B., 254.
- See also Rudolfs, W.
- Heukeshoven, W., and Winkel, A., amphoteric oxide hydrates, their aqueous solutions and crystalline compounds. XVIII. Comparison of hydrolytic phenomena and aggregation processes in aqueous solutions of beryllium, magnesium, and aluminium salts, A., 904.
- See also Blanck, E.
- Heumann, J. See Thiessen, P. A.
- Heurn, F. C. van, and Flintkote Corp., vulcanisation of rubber latex or other rubber dispersions, (P.), B., 801.
- Heuser, G., and Krapohl, E., heat-resistant spore-bearers in milk, B., 602.
- Heuser, H., apparatus for producing aldehyde-free alcoholic liquids, (P.), B., 601. Manufacture of preserved egg, (P.), B., 1034.
- Heuser, R. V., and Amer. Cyanamid Co., thiourea, (P.), B., 955.
- See also Barsky, G.
- Hevesy, G. von, diffusion in crystals, A., 669. Transport of matter in solid bodies, A., 1000.
- and Hobbie, R., molybdenum and tungsten content of minerals, A., 688.
- and Hosemann, R., radioactivity of samarium, A., 762.
- and Pahl, M., radioactivity of samarium, A., 4. Range of radiation from samarium, A., 442.
- Scith, W., and Keil, A., heat of loosening of lead lattice, A., 15.
- Hevi Duty Electric Co. See Koch, H. E.
- Hewett, C. L. See Cook, J. W.
- Hewitt, E. S., and Hurt, A. S., nitrate-nitrogen in urine of children, A., 1320.
- Hewitt, T. See Allen, N. P.
- Hewskij, D., and Jelinek, K., metal displacement equilibria of lead with cadmium or silver in their molten chlorides, bromides, and iodides, A., 783.
- Hewson, G. W., Pearce, S. L., Pollitt, A., and Rees, R. L., elimination of noxious constituents from flue gases and treatment of resulting effluents at Batterssea Power Station, B., 735.
- Hey, A., biology of the potato. XIV. Determination of degree of decomposition of tubers by electrometric measurements, A., 103.
- Hey, D. H. See Grieve, W. S. M.
- Hey, Emil. See Tiede, E.
- Hey, Ernest, and All-Sol Co., alloy-metal flux, (P.), B., 634.
- Hey, F. See Kurtenacker, A.
- Hey, L., and Ingold, C. K., influence of poles and polar linkings on the course pursued by elimination reactions. X. Formation and decomposition of dibenzylidiallylammonium hydroxide. XVII. Thermal decomposition of phosphonium ethoxides, A., 262, 701.
- See also Baker, J. W., and Fenton, G. W.
- Hey, M. H., and Bannister, F. A., zeolites. III. Natrolite and metanatrolite. IV. Ashcroftine (kalithomsonite of S. G. Gordon), A., 141, 588.
- See also Bannister, F. A., and Spencer, L. J.
- Heyd, F., chemical basis of production of water-gas from coke and coal, B., 48.
- Heydemann, E. R. See Lucke, H.
- Heydenburg, N. P., Paschen-Back effect of hyperfine structure and polarisation of resonance radiation; cadmium ( $6^1P_1-5^1S_0$ ), A., 548.
- Larick, L., and Ellett, A., polarisation of sodium resonance radiation and nuclear moment of the sodium atom, A., 1220.
- Heyfetz, P. A. See Braunstein, A. E.
- Heyl, F. W., Hart, M. C., and Emerson, H.,  $\beta$ -ergosterol. II., A., 947.
- and Larsen, D., unsaponifiable fraction from spinach fat. II., A., 989.
- See also Wise, E. C.
- Heyl, G. E., mixing of rubber, (P.), B., 116. Mineral cement mixtures [facing of walls with glass], (P.), B., 549.
- See also Sparklets, Ltd.
- Heyl, G. R. See Honess, A. P.
- Heyl & Co., Chemisch-Pharmazeutische Fabrik A.-G. See Freund, E.
- Heymann, E., and Boye, E., adsorption in solutions and physical properties of the solvent. II. Complete adsorption isotherms of binary liquid mixtures, A., 671.
- Heymann, K. See Levene, P. A.
- Heymons, A., preparation of *DL*-proline, A., 719. Synthesis of methylcaffeidine, A., 837.
- and Rohland, W., mode of formation of quinoline derivatives from carboxyanilides and transformations of acetanilide imidochloride, A., 283.
- Heyne, G., preparation and properties of beryllium fluoride glasses, B., 748.
- Heyne, H. See Helferich, B.
- Heyns, K. See Abderhalden, E.

- Heyroth, *F. F.*, apparent effect of thymus-nucleic acid on the incidence of rat polycyrcutis, *A.*, 1090.
- and Loofbourow, *J. R.*, ultra-violet absorption spectrum and chemical structure of vitamin-*B<sub>1</sub>*, *A.*, 99. Irradiation of nucleic acids and uracil, *A.*, 325. Deductions as to constitution of vitamin-*B<sub>1</sub>* from absorption spectra of *B<sub>1</sub>* concentrates, *A.*, 871.
- Heyrovský, *A.*, and Smoler, *I.*, polarographic studies with the dropping mercury cathode. XXX. Electro-reduction and determination of fructose and sorbose, *A.*, 260.
- Heyrovský, *J.*, industrial applications of the polarographic method, *B.*, 944.
- Heywang, *B. W.*, and Titus, *H. W.*, sources of vitamin-*A*, particularly lucerne products, for maintaining life of chicks, *B.*, 41.
- Heywood, *H.*, characteristics of pulverised fuels, *B.*, 416, 770.
- Heywood, (*Mrs.*) *H.* See under Weaver, *F. D.*
- Hibbard, *P. L.*, determination of plant-available phosphato in soil, *B.*, 278.
- and Stout, *P. R.*, determination of potassium by titration of the cobalt-nitrite with potassium permanganate, *A.*, 363.
- Hibbert, *H.*, plant synthesis of carbohydrates and polysaccharides, *A.*, 380.
- and Perry, *S. Z.*, mechanism of polymerisation, *A.*, 373.
- See also Ball, *R. H.*, Brauns, *F.*, Hallonquist, *E. G.*, Jahn, *E. C.*, Mitchell, *W.*, Moore, *L. P.*, and Platt, (*Miss*) *M. E.*
- Hibbert, *H. M.* See Brit. Celanese.
- Hibbott, *H. W.*, and Rees, *W. J.*, influence of cyanogen on reduction of carbon monoxide in contact with refractory materials, *B.*, 668.
- Hickinbottom, *A. R.*, and Williams, *J. L.*, soluble salts in non-irrigated vineyards, *B.*, 241.
- Hickinbottom, *W. J.*, alkylanilines with tertiary alkyl groups, *A.*, 705. Preparation of alkylanilines containing *tert.*-alkyl groups, *A.*, 1043. Elimination of *tert.*-alkyl groups from alkylanilines by hydrolysis, *A.*, 1043.
- Hickling, *A.* See Glasstone, *S.*
- Hickling, *H. G. A.*, and Marshall, *C. E.*, preservation of plant tissues in coal, *A.*, 1269. Microstructure of coal in fossil trees, *B.*, 5.
- Hickman, *K. C. D.*, and Eastman Kodak Co., conditioning of photographic films, (*P.*), *B.*, 492. Lubrication or treatment of photographic film [having a water-permeable colloid picture layer], (*P.*), *B.*, 733. Photographic printing method, (*P.*), *B.*, 988. Non-halation motion-picture film, (*P.*), *B.*, 1037.
- and Sanford, *C. R.*, automatic titrating devices, *A.*, 248.
- and Weyerts, *W.*, photographic sensitivity of silver sulphide, *A.*, 915. Optical intensification [of photographic images], *B.*, 893.
- Weyerts, *W.*, and Goehler, *O. E.*, electrolysis of silver-bearing thiosulphate solutions, *B.*, 313.
- See also Kodak, Ltd.
- Hickman, *W. J.*, new method for reducing hard negatives, *B.*, 252.
- Hicks, *C. S.*, and Matters, *R. F.*, standard metabolism of Australian aborigines, *A.*, 1193.
- See also Holden, *H. F.*
- Hicks, *J. F. G., jun.* See Latimer, *W. M.*
- Hicks, *V.*, corrected relative intensities of the X-ray lines in the tantalum *L* series, *A.*, 440.
- Hicks, *W. M.*, absolute value of the terms of *As*, *A.*, 655.
- Hicks-Bruun, *M. M.* See Bruun, *J. H.*
- Hickson, *E. F.* See Walker, *P. H.*
- Hickson, *P. M.*, and Thomas, *S. B.*, monthly variation in fat content of milk from Welsh farms, *A.*, 1186.
- Hidaka, *T.* See Izumi, *S.*
- Hidnert, *P.*, thermal expansion of electrolytic chromium, *A.*, 1109. Thermal expansion of copper alloys, *A.*, 1238.
- and Krider, *H. S.*, thermal expansion of niobium, *A.*, 1109. Thermal expansion of antimony, *A.*, 1237. Thermal expansion of nickel steels, *B.*, 1012.
- and Sweeney, *W. T.*, thermal expansion of lead, *A.*, 16.
- and United States, low-expanding alloy, (*P.*), *B.*, 713.
- Hieber, *W.*, and Anderson, *J. S.*, metal carbonyls. XVIII. Reactions and derivatives of metal carbonyls with substituted nitric oxide, *A.*, 476.
- and Levy, *E.*, complex chemical behaviour of ethanalamines, *A.*, 150. Constitution of complex salts of metal halides and amines and dependence of their stability on the anion, *A.*, 212. Supposed isomerism in compounds of non-electrolyte type  $MX_2A_4$ , *A.*, 241.
- and Vetter, *H.*, metal carbonyls. XIX. Iron carbonyl hydride, *A.*, 685.
- Hiedemann, *E.*, formation of silane in hydrogen discharge, *A.*, 576.
- Hieger, *J.* See Cook, *J. W.*
- Hiemann, *H.* See Hagemann, *H.*
- Hiergesell, *D.*, and Hiergesell & Sons, *W.*, hydrometer, (*P.*), *B.*, 689.
- Hiergesell & Sons, *W.* See Hiergesell, *D.*
- Higashi, *S.*, synthesis of bile acids. V. *Cortinellus shiitake* and secretion of bile acids, *A.*, 84.
- Higasi, *K.*, polarity of chemical compounds. III. and IV., *A.*, 1230.
- See also Mizushima, *S.*
- Higasi, *T.*, graphical study of composition of organic compounds. IV., *A.*, 46.
- Higbee, *H. W.* See Wilson, *J. K.*
- Higburg, *W.*, and Reilly, *P. C.*, treatment of tar and similar oils, (*P.*), *B.*, 1044.
- Higerovitch, *M.* See Petin, *N. N.*
- Higginbottom, (*Miss*) *C.* See Challenger, *F.*
- Higgins, *G. M.*, Berkson, *J.*, and Flock, *E.*, diurnal cycle in the liver. I. Periodicity of the cycle, with analysis of chemical constituents involved, *A.*, 417.
- Higgins, *J. M.*, and Montgomery, *R. J.*, electrical refractory porcelain bodies containing magnesium oxide, *B.*, 19.
- High, *M. E.*, and Pool, *M. L.*, removal of continuous background from Raman spectrum of carbon tetrachloride, *A.*, 445.
- Highways Construction, Ltd., and Rhodes, *C. W.*, asphaltic surfacing compositions, (*P.*), *B.*, 1010.
- Higley, *E. A.*, and Thorsen, *C. C.*, mobilities of gaseous ions in  $MoNO_2-H_2$  and  $MeCN-H_2$  mixtures, *A.*, 203.
- Hiki, *Y.*, Akazaki, *K.*, Bann, *T.*, Miyazaki, *Y.*, and Takizawa, *N.*, salivary glands. III., *A.*, 1335.
- Takizawa, *N.*, Ban, *T.*, Miyazaki, *Y.*, and Akazaki, *K.*, salivary glands. II., *A.*, 319.
- Hilberg, *F. C.* See Titus, *H. W.*
- Hileken, *V.* See I. G. Farbenind.
- Hild, *K.*, total radiation of oxides and mixtures of oxides, *A.*, 336.
- Hildebrand, *J. H.*, and Salstrom, *H. J.*, thermodynamic properties of liquid solutions of silver bromide with alkali bromides, *A.*, 26.
- Hildebrandt, *F.* See Schoeller, *W.*, and Schwenk, *E.*
- Hildisch, *D.*, improving the taste of hydrogenated fatty oils, (*P.*), *B.*, 878.
- Hilditch, *T. P.*, general features common to most fruit-coat fats, *B.*, 594.
- and Salefore, *S. A.*, examination of azelao-glycerides obtained during oxidation of simple synthetic and natural glycerides, *A.*, 592.
- See also Banks, *A.*, Collin, *G.*, Dean, *H. K.*, and Griffiths, *H. N.*
- Hilgonberg, *L.* See Bong, *E.*
- Hilgert, *H.* See Walden, *P.*
- Hilgetag, *G.* See Butenandt, *A.*, and Schmitz, *Ernst.*
- Hill, *A. E.*, Willson, *H. S.*, and Bishop, *J. A.*, ternary systems. XVII. Sodium iodide, potassium iodide, and water. XVIII. Sodium iodide, sodium iodate, and water, *A.*, 352.
- Hill, *A. V.*, physical nature of nerve impulse, *A.*, 527.
- Hill, *C. B.*, refrigeration-plant chemistry, *B.*, 895.
- Hill, *D. D.*, chemical composition and grades of barley and oat varieties, *A.*, 990.
- Hill, *D. W.* See Elek, *A.*, and Levene, *P. A.*
- Hill, *Edgar.* See Barker, *S. G.*
- Hill, *Elsie*, and Koehler, *A. E.*, effect of adrenalectomy on sugar tolerance, *A.*, 430.
- Hill, *E. L.*, Zeeman effect in the  $2Z-2Z$  cyanogen bands, *A.*, 207.
- Hill, *E. S.* See Michaelis, *L.*
- Hill, *F. B.* See Brit. Celanese.
- Hill, *G. A.*, and Kropa, *E. L.*, halogenated pinacolones, *A.*, 809.
- Hill, *G. R., jun.*, and Thomas, *M. D.*, influence of leaf destruction by sulphur dioxide and by clipping on yield of lucerne, *B.*, 645.
- Hill, *H.* See Gluud, *W.*
- Hill, *J. B.*, and Atlantic Refining Co., treatment of [mineral lubricating] oils (*P.*), *B.*, 740.
- Hill, *J. R.*, and Barrett Co., purification of solid aromatic hydrocarbons, (*P.*), *B.*, 220.
- Hill, *L. L.*, tarnished plant bug injury to celery, *B.*, 484.
- Hill, *P.*, and Robinson, *R.*, strychnine and brucine. XXIV. Synthesis of dinitro-strycholamide, *A.*, 729.
- Hill, *R.* See Imperial Chem. Industries.
- Hill, *R. B.*, and Brown Co., artificial leather, (*P.*), *B.*, 586.
- Fogarty, *J. A.*, and Brown Co., treatment of artificial leather sheetings, (*P.*), *B.*, 461.
- See also Richter, *G. A.*
- Hill, *Roy L.*, and Atlas Powder Co., blasting powder, (*P.*), *B.*, 94.
- Hill, *Ruben L.*, and Merrill, *A. C.*, cheese from soft- and hard-curd milks, *B.*, 363.
- Hill, *R. M.*, determination of colloid osmotic pressure in small quantities of fluid, *A.*, 224.
- See also Longwell, *B. B.*
- Hill, *S. E.* See Osterhout, *W. J. V.*
- Hill, *T. G.* See Haas, *P.*

- Hill, *W. H.* See Jones, *S. E.*
- Hill, *W. L.*, and Jacob, *K. D.*, determination and occurrence of iodine in phosphate rock, B., 346.
- Marshall, *H. L.*, and Jacob, *K. D.*, occurrence of sulphur, organic matter, nitrogen, and water in phosphate rock, A., 691. Minor metallic constituents of phosphate rock, B., 17.
- See also Jacob, *K. D.*
- Hill, *W. M.*, and Canary, *J. D.*, grinding mill, (P.), B., 608.
- Hillebrandt, *H.* See Berl, *E.*
- Hillemann, *H.* See Bergmann, *E.*
- Hiller, *A.* See Van Slyke, *D. D.*
- Hiller, *G.* See Hansen, *C. J.*
- Hiller, *W.* See Nagel, *W.*
- Hillhouse, *C. B.*, utilisation of free oxygen in production of cement and iron, (P.), B., 191. Dissociation of natural gas, (P.), B., 851.
- Hillier, *G. O.*, and Oliver United Filters, Inc., filter, (P.), B., 848.
- See also Oliver United Filters, Inc.
- Hillig, *F.* See Hartmann, *B. G.*
- Hillman, *B. S.*, [dyeing] aniline black on silk, B., 461.
- Hillmer, *A.*, lignin. VI., A., 1296.
- Hills, *C. A.* See Simmons, *W. H.*
- Hills, *F. G.*, quantitative separation of small amounts of zinc from material rich in iron, A., 688.
- Hills, *H. W.* See Kernot, *J. C.*
- Hills, *H. W. J.*, Kenyon, *J.*, and Phillips, *H.*, tautomeric forms of substituted allyl alcohols, A., 1033.
- Hills, *J. H.*, and Bousman Manufg. Co., vacuum still, (P.), B., 817.
- Hills Bros. Co. See Fellers, *C. R.*
- Hilpert, *R.* See Pfeiffer, *P.*
- Hilpert, *S.*, and Gille, *R.* [with Niehaus, *C.*, and Grader, *R.*], determination of minute amounts of phenols in aqueous solution, B., 617.
- and Hofmeier, *H.*, localisation and determination of chlorophyll in parts of plants, A., 1344. Transparent pressure apparatus for cellulose investigations, B., 142.
- and Jordan, *F.*, decomposition of straw with sulphurous acid and bisulphites, B., 263.
- and Lindner, *A.* [with Wille, *A.*, and Schweinhagen, *R.*], ferrites. II. Alkali, alkaline-earth, and lead ferrites, A., 1234.
- Wolter, *A.*, and Hofmeier, *H.*, decomposition of grasses. I. Neutral and alkaline sulphite processes, B., 342.
- Hiltner, *W.*, potentiometric analysis, A., 362. Electrode pair for rapid potentiometric analysis, A., 1027.
- and Marwan, *C.*, determination of chromium, manganese, and vanadium present together in special steels, B., 349.
- Hilton, *J. H.*, Hauge, *S. M.*, and Wilbur, *J. W.*, maintaining vitamin-A content of butter through winter feeding conditions, B., 1032.
- See also Wilbur, *J. W.*
- Himeno, *S.* See Watabiki, *T.*
- Himsworth, *H. P.*, activation of insulin, A., 98.
- Himwich, *H. E.*, Nahum, *L. H.*, Rakietyen, *N.*, Fazikas, *J. F.*, Du Bois, *D.*, and Gildea, *E. F.*, metabolism of alcohol, A., 744.
- See also Goldfarb, *W.*
- Hinard, *G.*, and Boury, *M.*, identification of the covering and frying oils of preserved fish, B., 490.
- Hincke, *W. B.*, vapour pressure of cadmium oxide, A., 668.
- Hinckley, *A. T.* See Broadwell, *B. E.*
- Hind, *H. L.*, analytical methods for appreciation of barley and malt; Californian barleys, B., 648.
- and Lancaster, *H. M.*, malting trials, B., 648.
- Hind, *S. R.*, and Adams, *B.*, apparatus [centrifugal fan] for circulating gases or vapours in tunnel ovens and similar plant, (P.), B., 993.
- Hind, *W.*, use of modern gas-heated equipment for industrial drying processes, B., 47.
- Hinde, *C.*, disposal of [sulphuric] acid waste, (P.), B., 266.
- Hinde & Dauch Paper Co. See Drewsen, *P.*
- Hinds, *G. H.* See Hunt, *F. R. W.*
- Hinegardner, *W. S.*, needle-shaped crystals of sodium chloride, A., 665. Racemisation of chaulmoogric and hydnocarpic acids, A., 947.
- Hinkel, *H.* See Berl, *E.*
- Hinkel, *L. E.*, Ayling, *E. E.*, and Morgan, *W. H.*, hydrogen cyanide. IV. Gattermann's hydrogen cyanide aldehyde synthesis, A., 65.
- See also Imperial Chem. Industries.
- Hinkson, *J. C.* See Bartlett, *J. H.*
- Hinman, *W. F.* See McClure, *W. B.*
- Hinsberg, *K.*, and Holland, *G.*, effect of iodoacetic acid on lactic fermentation of milk, A., 300.
- Hinsberg, *O.*, 1:3:5-trithian perchlorate, A., 1303. Trimethylene trisulphide of m.p. 247°, A., 1303.
- Hinsch, *W.*, distillation cathodes, A., 34.
- Hinshelwood, *C. N.*, upper pressure limit of ignition, A., 1248. Mechanism of chemical reactions, A., 1248.
- and Fletcher, *C. J. M.*, kinetics of decomposition of molecules of intermediate complexity, A., 129.
- and Grant, *G. H.*, upper pressure limit in the explosive chain reaction between hydrogen and oxygen, A., 355.
- and Moelwyn-Hughes, *E. A.*, lower pressure limit in the chain reaction between hydrogen and oxygen, A., 30.
- Moelwyn-Hughes, *E. A.*, and Rolfe, *A. C.*, combination of hydrogen and oxygen in a silver vessel, A., 469.
- Thompson, *H. W.*, and Hadman, *G.*, flame spectrum of carbon monoxide, A., 6.
- See also Bairstow, *S.*, Fletcher, *C. J. M.*, Grant, *G. H.*, Hadman, *G.*, and Musgrave, *F. F.*
- Hinton, *C. O.* See Woollett, *G. H.*
- Hinton, *H. D.* See Hennion, *G. F.*, and Sowa, *F. J.*
- Hinton, *W. E.* See Richards, *H. J.*
- Hintze, *H.*, weighting of natural and artificial silk fibres, (P.), B., 1007.
- Hinzmann, *R.*, hot-pressing [extrusion] of hard 58:42 brass, B., 590.
- Hippauf, *E.*, influence of moisture on breakdown strength of insulators, A., 765.
- Hippel, *A. von*, electrical conduction in solids with high field strengths, A., 999.
- Hipple, *J. S.*, expansion-joint filling material, (P.), B., 770.
- Hirabayashi, *O.* See Masaki, *Kosaku.*
- Hirakata, *T.* See Asahina, *Y.*
- Hiramatsu, *T.*, carbohydrate metabolism; influence of muscular work on the blood-sugar and glycogen contents and of injection of sugar and phosphate on the blood-sugar and glycogen contents after muscular work, A., 183. Nitrogenous and fat metabolism; influence of muscular work on the blood-nitrogen and -fat content, A., 183.
- Hirano, *S.* See Ogata, *A.*
- Hirata, *F.* See Duclaux, *J.*
- Hirohata, *R.*, globulins of *Cucurbitacoe* seeds, A., 104.
- Shimokawa, *H.*, and Kamizawa, *O.*, detection of protein in human urine, A., 1068.
- See also Felix, *K.*, and Karrer, *P.*
- Hironaka, *S.*, osmotic pressure and membranes. I., A., 849.
- Hirone, *T.* See Honda, *K.*
- Hirsch, *A.* See Kautsky, *H.*
- Hirsch, *Alcan.*, nickel-plating of fabricated zinc in a barrel, B., 751.
- Hirsch, *H.*, composition and sintering power of clays, B., 465.
- Hirsch, *H. C.*, continuous filtering apparatus, (P.), B., 769.
- Hirsch, *H. E.* See Böeseken, *J.*
- Hirsch, *J.*, chemistry of the diphtheria bacillus. II. Aqueous extracts of the bacillus, A., 190.
- Hirsch, *P.* See Tillmans, *J.*
- Hirsch, *W.*, dependence of crystallisation velocity of the devitrification products of English lead glass on potash content, B., 915.
- Hirschel, *W. N.*, cadmium, thallium, indium, and gallium as by-products of the lithopone industry, B., 977.
- Hirschfelder, *A. D.*, clinical manifestations of variations in blood-magnesium, A., 1191.
- Hirschkind, *W.*, bleaching of ground wood, B., 56.
- and Great Western Electro-Chem. Co., alkali xanthates, (P.), B., 588. Bleaching of paper pulp, (P.), B., 620.
- Hirschmann, *H.* See Rupe, *H.*
- Hirschmüller, *H.* See Bendig, *M.*
- Hirsh, *F. R., jun.*, and Richtmyer, *F. K.*, production of the molybdenum *La* satellites by fluorescent absorption of silver *La* radiation, A., 1221.
- See also Richtmyer, *F. K.*
- Hirshberg, *Y.* See Errera, *J.*
- Hirst, *E. L.*, structure of ascorbic acid, A., 489.
- Percival, *E. G. V.*, and Smith, *Fred.*, constitution of ascorbic acid, A., 594.
- and Zilva, *S. S.*, ascorbic acid as the antiscorbutic factor, A., 1091.
- See also Ault, *R. G.*, Carrington, *H. C.*, Cox, *E. G.*, Haworth, *W. N.*, and Herbert, *R. W.*
- Hirst, *H. R.*, oil stains [in textiles]. I. and II., B., 504.
- and King, *A. T.*, lubricating oils and cancer, A., 85. Chlorination of wood, B., 584.
- Hirst, *M. C.* See Speakman, *J. B.*
- Hirt, *R.* See Reichstein, *T.*
- Hiruma, *K.* See Muraoka, *H.*
- Hirwe, *N. W.*, and Jambhekar, *M. R.*, salicylic acid. IV. 4-Sulphosalicylic acid, A., 607.
- Hishiyama, *K.*, and Tabei, *S.*, thermal and chemical changes of Katô kaolin and their application, A., 240.

- Hishiyama, K., and Tabei, S., identification of tannin-antimony and Katanol mordants applied to cotton and viscose silk in dyeing with basic colours, B., 225.
- and Tomonari, M., absorption of tannic acid by the principal textile fibres. I.—III. Absorption of tannic acid by viscose silk under varying conditions, B., 744.
- Hissink, D. J., soil problems arising from cultivation of land recovered from the Zuider Zee, B., 1025.
- Hitch, A. R., Ebaugh, T. A., and Gillican-Chipley Co., recovery of rosin from collected crude matter, (P.), B., 1021. Preparation of high-grade rosin, (P.), B., 1021.
- and Gillican-Chipley Co., high-grade rosin, (P.), B., 1021.
- Hitch, E. F. See Du Pont de Nemours & Co., E. I.
- Hitchcock, A. E. See Zimmerman, P. W.
- Hitchcock, C. S., and Smyth, C. P., rotation of molecules or groups in crystalline solids, A., 448.
- See also Smyth, C. P.
- Hitchcock, D. I., combination of proteins with hydrochloric acid, A., 171.
- Hitchcock, F. C. See Rosin, J.
- Hitchen, C. S., determination of impurities in tin by means of the quartz spectrograph, B., 351.
- Hixon, R. M. See Peterson, C. J., and White, (Miss) A.
- Hixson, A. W., and Fain, J. M., stabilisation of aqueous dispersions of asphalt, B., 135.
- and Plechner, W. W., hydrated titanium oxide; thermal precipitation from titanium sulphate solutions, B., 345.
- Hlasko, M., differences between coefficients of conductivity of strong electrolytes in the same solvent, A., 785.
- Hloch, A., regeneration of breathing air in gas-protection apparatus by means of alkali peroxides, B., 253. Production of gaseous oxygen by chemical methods, B., 702.
- Hluchovsky, B., and Sekla, B., cytotoxicity by fat solvents and importance of calcium and lecithin in the physico-chemical behaviour of protoplasm, A., 736.
- Hlučka, F., characteristic vibrations and the selective external photo-electric effect. I. Coal-tar dyes in the visible spectral region. II. Metals in the ultra-violet. III. Coal-tar dyes in the ultra-violet, A., 447, 555. Selectivity of the external photo-electric effect of alloys, A., 999. Influence of metal surface on position of selectivity of the external photo-electric effect, A., 999.
- See also Freytag, H.
- Hoag, J. B., and Jones, H., permeability of iron at ultra-radio frequencies, A., 117.
- See also Gale, H. G.
- Hoagland, D. R., and Martin, J. C., adsorption of potassium by plants in relation to replaceable, non-replaceable, and soil-solution potassium, B., 804.
- Hoard, J. L., crystal structure of potassium silver cyanide, A., 215. X-Ray investigation of 12-molybdophosphates and related compounds, A., 215.
- and Dickinson, B. N., crystal structure of potassium selenibromide, A., 451.
- Hoare, F. E., accuracy of the Curie-Chéneveau magnetic balance, A., 1265.
- Hoare, S. C. See Brit. Thomson-Houston Co.
- Hoather, R. C., apparatus for rapid determination of oxygen or other gases dissolved in water, B., 942.
- Hobart Manufacturing Co. See Johnston, Herbert L.
- Hobbie, R. See Hevesy, G. von.
- Hocart, R., X-ray examination of boracite, A., 451. Orientation of arsenolite and senarmontite on mica, A., 588.
- Hoch, J., preparation of diarylacetic acids and their derivatives, A., 821. General method for preparing di- and tri-aryl-acetonitriles, A., 1292.
- Hoch, J. H., tannin spot-tests, A., 408. Cascara, B., 365.
- Hochheimer, W., phosphorus compounds of milk; differentiation, demonstration, and behaviour during lactation, A., 300.
- Hochlov, A. V., elastometric method of measuring swelling, A., 125.
- Hochwalt, C. A., Waliszewski, J. B., and Morton Salt Co., ammonium bromide, (P.), B., 624.
- Hock, A., limits of use of the seedling method [for determining soil-nutrient values], B., 560.
- See also Niklas, H.
- Hock, H., and Susemihl, W., autoxidation of hydrocarbons. I. Tetrahydronaphthalene peroxide obtained by autoxidation, A., 153. Tendency of tetralin to autoxidation, B., 421.
- Hockensmith, R. D., Gardner, R., and Kezer, A., effect of depth of placement on availability of superphosphate in calcareous soils, B., 759.
- and Tucker, E., relation of elevation to nitrogen content of grassland and forest soils in the Rocky mountains of Colorado, B., 803.
- Hockenyoos, G. L., and Irwin, G. R., Bordeaux [mixture] deposition, B., 119.
- Hocker, I. S., and Hoeker Corp., extraction of cocoa butter, (P.), B., 675.
- Hoeker Corporation. See Hocker, I. S.
- Hockey, J. F., Gravenstrin spot scald, B., 331.
- Hoder, F., oligodynamic action of distilled water and its practical significance, A., 191. Growth-promoting substances in plants, A., 1093.
- Hodge, H. C., gingival tissue lipins, A., 846.
- Hodges, A. B., and Gen. Zeolite Co., liquid treatment; [electro-osmotic purification of water], (P.), B., 475.
- Hodges, F. W., photo-change of N-chloro-acetanilide in various solvents, A., 473.
- Hodgkinson, E., [apparatus for] coating of tiles, slabs, bricks, and similar articles with sand, etc., (P.), B., 64.
- Hodgson, H. H., colour and constitution from viewpoint of recent electronic theory. VI., A., 946.
- and Clay, H., nitrosation of phenols. XV. Resorcinol mono-n-butyl ether, A., 818.
- and Crook, J. H., nitration of p-dimethyl-aminoacetanilide by nitrous acid, A., 154. Four dinitrodimethyl-p-anisidines, A., 945.
- and France, H. V., reaction between o-toluidine and sulphur, A., 497.
- and Smith, Ernest Walter, 3,5-dinitrobenzaldehyde, A., 504. Apparent anomalous liability of the 2-nitro-group in 2,3-dinitrotoluene; example of the reversed-field effect, A., 703.
- Hodgson, H. H., and Walker, J., nitration of aceto- $\alpha$ -naphthalide and preparation of 2- and 4-nitro- $\alpha$ -naphthylamines, A., 1155. Preparation of 1:5- and 1:8-dinitronaphthalene and 5-nitro- $\alpha$ -naphthylamine, A., 1284.
- Walker, J., and Nixon, J., direct dibromination of m-bromophenol and an example of group migration, A., 1045.
- See also Imperial Chem. Industries.
- Hodgson, R. E., and Knott, J. C., apparent digestibility of, and nitrogen, calcium, and phosphorus balance of dairy heifers fed on, artificially dried pasture herbage, A., 184.
- See also Whitnah, C. H.
- Hodgson, T. H., relation of lactic acid and alanine to glycogen formation, A., 1074.
- Hodson, F. S., silicon-iron castings, (P.), B., 432.
- Höber, R., excretion of creatinine by frog's kidney, A., 413.
- and Meirowsky, A., excretion of lipin-insoluble acid dyes through the frog's kidney, A., 413.
- See also Amberson, W. R., and Ferrari, R.
- Höchtlen, J. See Wieland, H.
- Hoefelman, J. M. See Böeseken, J.
- Höfer, W. See Zsehacker, F. H.
- Höfling, W. See Rewald, B.
- Högl, F., central blood-sugar regulation; effect of antipyretics, particularly pyramidone, on blood-sugar, A., 311. Influence of vagotomy on the blood-sugar, A., 1197.
- and Zell, F., hormonal regulation of blood-sugar, A., 734.
- Højendahl, K., method of determining dielectric constants of powders, A., 338.
- Hoekstra, J., theory of cathodic evolution of hydrogen, A., 1122. Balance-plastometer; simple apparatus for measurement of plasticity and recovery of soft materials [including rubber], B., 1040.
- Hoel, A. B., and Atlantic Refining Co., emulsifiable oil, (P.), B., 615.
- Hölemann, H., electrochemistry of rhodium. II. Electrochemical reduction products in solutions containing chloride and fluoride ions, and chemical formation of lower valency stages in sulphuric acid solution, A., 472.
- Hoelkeskamp, F. See Zart, A.
- Hölscher, F. See Wieland, H.
- Höltje, R., heats of formation of halide phosphinates. III., A., 127. Sodium hydroxide-sodium cyanide melts, A., 1013.
- Hölzl, F., Brell, W., and Schinko, G., hexacyanocobaltic acid and n-propyl alcohol, A., 1131.
- and Stockmair, W., complex anion of Buff's and Bunsen's salts, A., 449.
- Hönighaus, L., action of hypnotics on blood-sugar and blood-lactic acid, A., 185.
- Hönigsmid, O., at. wt. of tellurium. II. Synthesis of silver telluride, A., 1223.
- and Kapfenberger, W., revision of at. wt. of selenium; synthesis of silver selenide, A., 659. At. wt. of erbium; analysis of erbium trichloride, A., 1099.
- and Sachtleben, R., fundamental at. wts. XII. Revision of at. wt. of potassium; analysis of potassium chloride and potassium bromide, A., 994.

- Hönigschmid, O., Sachtleben, R., and Baudrexler, H., at. wt. of uranium lead, A., 1099.
- Sachtleben, R., and Wintersberger, K., at. wt. of tellurium; analysis of tellurium tetrabromide, A., 761.
- and Striebel, H., at. wt. of ytterbium; analysis of ytterbium trichloride, A., 762.
- See also Baxter, G. P.
- Hönsch. See Sprockhoff.
- Hoepfner, W., reactions for caffeic and chlorogenic acids, A., 173. Chlorogenic acid content of raw and roasted coffee, B., 1081.
- Höpner, T. See Steinkopf, W.
- Höppler, F., measurement of the viscosity of liquids; new universal viscosimeter, A., 367. Temporary depression of zero point of sensitive mercury thermometers, A., 689.
- Hoeppli, R., and Feng, I. C., experimental studies on ticks, A., 524.
- Hoerburger, W. See Fink, H.
- Hoermann, F. E., Robertson, H. M., and Santo, J. M., treating food and other products with high-frequency oscillations, (P.), B., 475.
- Hörste, G. M. zu, magnesium rickets, A., 1072.
- Höschen, W. See Diltthey, W.
- Hoesch-Köln Neussen Akt.-Ges. für Bergbau & Hüttenbetrieb, treatment of basic phosphate [Thomas] slags, (P.), B., 306. [Portland] cement, (P.), B., 388.
- Hösl, H. See Ruzicka, L.
- Hoessle, C. H. von, and Chem. Fabr. von Heyden A.-G., casting of cellulose sheets from solutions of cellulose, (P.), B., 861.
- Hoet, J., and Ernould, H., re-formation of muscle-glycogen after exercise is an insulin action, A., 184.
- Hoeven, C. van der, sulphito-chrome [-tanning] liquors, B., 117. Determination of nitrogen in leather, B., 980.
- Hofer, K., corrosion phenomena in high-pressure boilers, B., 968.
- See also Wöhler, L.
- Hoff, A. See Felix, K.
- Hoffer, M. See Kuhn, R.
- Hoffert, W. H., and Claxton, G., oxidation test for stability of benzols on storage B., 50. Modern methods of benzol refining; use of inhibitors for preventing gum formation, B., 210. Ease of starting with benzol, with petrols, and with benzol-petrol mixtures, B., 418.
- Hoffman, A., Farlow, M. W., and Fuson, R. C., ring-chain conjugation in the quinoline series, A., 721.
- Hoffman, C., and Ward Baking Co., food product, (P.), B., 604.
- Hoffman, J. See Shaw, C. G.
- Hoffman, J. L., determination of magnesia in phosphate rock, B., 17.
- Hoffman, M. B. See Heinicke, A. J., and Knowlton, H. E.
- Hoffman, R. M., and Daniels, F., photochemical technique. III. Quartz capillary are lamps of bismuth, cadmium, lead, mercury, thallium, and zinc, A., 44.
- Hoffman, W. F. See Gortner, R. A.
- Hoffman, W. S., determination of total base of serum, A., 1182.
- and Post, W. E., influence of mineral metabolism on nephrotic edema, A., 1323.
- Hoffmann, Alb. See Jänecke, E.
- Hoffmann, Alex., difference in size of ions of zirconium and hafnium, A., 1098.
- Hoffmann, Alexander, and Färi, L., röttlerin, A., 397.
- Hoffmann, E. (Essen), and Jenkner, A., coalification and its detection under the microscope, B., 372.
- See also Lehmann, K.
- Hoffmann, Erna. See Jander, W.
- Hoffmann, F. See Anselmino, K. J.
- Hoffmann, Gerhard. See Franck, H. H.
- Hoffmann, Günter. See Kallós, P.
- Hoffmann, Heinrich. See Keppeler, G.
- Hoffmann, Helmut, lesser-known uses of viscose, B., 959.
- and Bruch, N., peculiar case of thixotropy, A., 461. System cellulose-copper hydroxide-ethylenediamine, A., 465.
- See also Herzog, R. O.
- Hoffmann, Helmut. See Bergmann, E.
- Hoffmann, J., colorations in glasses and various compounds due to alkali metal vapour, A., 579.
- Hoffmann, K. M. See Gerngross, O.
- Hoffmann, M. K., preparation of high-melting glasses, B., 866.
- Hoffmann, W., bromometric determination of novocaine and anæsthesin by Fijalkow's method, A., 1063.
- Hoffmann, Wilhelm, preparation of standard solutions for the colorimetric determination of the humification number in moor soils, B., 359.
- Hoffmann-La Roche & Co. Akt.-Ges., F., oestrus hormone, (P.), B., 44. Stable concentrated solutions for therapeutic use, (P.), B., 92. 1-Phenyl-3-methyl-4-alkyl- and -4-aralkyl-5-pyrazolones, (P.), B., 284. 1-Phenyl-2,3-dimethyl-4-alkyl-5-pyrazolones, (P.), B., 284. Purification of vitamin-A preparations, (P.), B., 684. Aromatic hydroxy-aldehydes [vanillin], (P.), B., 778. N-Allyl- and NN-diallyl-CC-disubstituted barbituric acids, (P.), B., 812. Manufacture of esters of fatty-aromatic acids with amino-alcohols, (P.), B., 939. CC [5:5]-Phenylethyl-N-propylbarbituric acid, (P.), B., 988. Aromatic hydroxy-aldehydes, (P.), B., 1047.
- See also Häussler, E. P.
- Hofmann, A. See Stoll, A.
- Hofmann, E.,  $\beta$ -glucosidase of lactose fermenters, A., 314. Phosphorylation produced by lactose fermenters, A., 1204. Lactose in bottom yeast, A., 1204.
- See also Neuberg, C.
- Hofmann, F., polymerisation processes, A., 142.
- Berlin, K., and Schmidt, A. W., relation between constitution and anti-knock value of hydrocarbons. III., B., 900.
- and Boente, L., chemistry of pitch, B., 1042.
- Lang, K. F., Berlin, K., and Schmidt, A. W., relation between constitution and anti-knock value of hydrocarbons. II., B., 419.
- Hofmann, K. A., formation and decomposition of potassium perchlorate and revision of the heat toning, A., 133.
- Hofmann, R. See Feist, K.
- Hofmann, Remigius. See Manegold, E.
- Hofmann, Rudolf, microchemical determination of nicotine, B., 365.
- Hofmann, U., crystal-chemical processes with carbon, A., 133. Carbon with metallic lustre; new form of carbon? A., 683.
- [with Frenzel, A., Wilm, D., and Csálán, E.], unidimensional swelling of graphitic acid and graphite, A., 12.
- See also Fink, M., and Hanemann, H.
- Hofmann, W., structural and morphological relationships of minerals of type ABC<sub>2</sub>; structures of wolfsbergite and emplectite, and their relation to stibnite, A., 214. Structural and morphological relations between ores of the formula type ABC, A., 1029. Structure of minerals of the stibnite group, A., 1106.
- Hofmeier, H., and Meiner, H., separation of mixtures of low-boiling hydrocarbons into their components by means of silica gel, B., 497.
- and Wisselinck, S., action of metals on sulphur compounds in crude benzene from low-temperature carbonisation of brown coal. I. II. Alkali metals, B., 453, 819.
- See also Hilpert, S., and Schaarschmidt, A.
- Hogeboom, G. B., Diggin, M. B., and Hanson-Van Winkle-Munning Co., cadmium-plating composition, (P.), B., 925.
- and Hanson-Van Winkle-Munning Co., zinc-aluminium-mercury, (P.), B., 794.
- Hogan, A. G., and Richardson, L. R., effect of ultra-violet rays on the dermatitis-preventing vitamin, A., 872.
- See also Ashworth, U. S.
- Hogan, J. J. See Lawrence, A. E.
- Hoge, D. W., and Newbery, C. W., treatment of resins, (P.), B., 1021.
- Hoge, W. P. See Babcock, H. D.
- Hoggatt, W. B., waterproof and fireproof fibrous product, (P.), B., 460.
- Hogness, T. R. See T'sai, L. S.
- Hohl, H. O., precision gas-holder for constant pressure, A., 801.
- Hohlweg, V. See Aschheim, S., and Klemola, V.
- Holbert, J. R. See De Turk, E. E.
- Holborn, F., and De Forest Radio Telephone & Telegraph Co., ["flashing" of] electron-discharge devices, (P.), B., 273.
- Holbrook, B. D., thermal motions of atoms in crystals, A., 1105.
- Holbrook, H. E. See Waltenberg, R. G.
- Holcomb, R., universal dilatometer, A., 587.
- Holdaway, C. W., and Pratt, A. D., pasture fertilisation at the Virginia agricultural station, B., 599.
- Holdaway, F. G., composition of different regions of mounds of *Eutermes exitiosus*, Hill, A., 1193.
- Holden, H. F., fractionation of Australian snake venoms. II. Venoms of the tiger snake (*Notechis scutatis*), black tiger snake (*Notechis scutatis niger*), and black snake (*Pseudechis porphyriacus*), A., 625.
- and Freeman, M., proteins of ox serum, A., 1315.
- and Hicks, C. S., absorption of ultra-violet radiation by hæmoglobin and its derivatives, A., 293.
- Holden, J. H. See Betz, C. E.
- Holderer, G. B., and Clark, L. V., [liquid oxygen] explosive, (P.), B., 573.
- See also Perrott, G. St. J.
- Holding, H. R. See Downing, G. H.



- Holdridge, C. E. See Cavett, J. W.
- Holdsworth, (Miss) M. G., and Lions, F., derivatives of 2-phenylquinoline. I. Preparation of "atophans" from veratraldehyde. II. "Atophans" with substituent basic groups. III. Derivatives of polyhydroxy-"atophans," A., 836.
- Holdt, H. See Thum, A.
- Holiday, D. See Williams, R. J.
- Holiday, E. R. See Wilson, Clifford.
- Hollaender, A., and Stauffer, J. F., capillary mercury-vapour lamp, A., 1026.
- and Williams, John Warren, molecular scattering of light from ammonia solutions, A., 208.
- See also Williams, John Warren.
- Holland, G., and Schürmeyer, A., detection of porphyrin in urine, A., 179.
- See also Hinsberg, K.
- Holland, H. C. See Page, R. O.
- Holleman, A. F., extraction of solutions, A., 221. [Sulphonation of *m*-nitrotoluene], A., 495.
- Hollenweger, H., and Rumpelt, H., melting region of silicon dioxide-glass oxide systems and conclusions reached therefrom, A., 1247.
- Hollenweger, M., silica bricks, etc., (P.), B., 20.
- Holler, K., hydrothermal alteration of Greenland basalts, A., 1029.
- Holley, K. T., Pickett, T. A., and Dulin, T. G., ammonia- and nitrate-nitrogen for cotton. I. Influence on absorption of other elements, B., 36.
- Hollings, H., carbonisation of screened, mixed, and blended coals, B., 291.
- Use of coke for domestic purposes, B., 771.
- See also Gas Light & Coke Co., and Griffith, R. H.
- Hollingsworth, W. T. P. See Lederer, A.
- Hollingsworth, D. W., Tarr, L. W., and Continental-Diamond Fibre Co., in-durated cellulosic product, (P.), B., 960.
- Hollmann, A. H., fundamental theory and the law of diminishing returns in agriculture, B., 982.
- Hollnagel, H. P. See Gen. Electric Co.
- Hollo, E. See Virtanen, A. I.
- Holloway, J. H., and Krase, N. W., synthesis of benzaldehyde from benzene and carbon monoxide under pressure, A., 715.
- Hollup, C. H., and Hollup Corp., electrode coating and method of welding, (P.), B., 714.
- Hollup Corporation. See Hollup, C. H.
- Holly, O. M. See Sandberg, M.
- Holm, A. See Anderson, J. F.
- Holm, G. E. See Greenbank, G. R., and Webb, B. H.
- Holm, J. M., ignition of explosive gaseous mixtures by small flames, A., 355.
- Holm, M. M., and Standard Oil Co. of California, aluminium chloride, (P.), B., 386.
- See also Shiffler, W. H.
- Holmberg, A. W. See Naugatuck Chem. Co.
- Holmberg, B. See Axberg, G.
- Holmberg, C. G., donator action of adenosinetriphosphoric acid and cozymase, A., 862.
- Holmbergh, O., adsorption of malt-amylase on starch, A., 425.
- Separation of the two malt-amylases by adsorption, A., 749.
- Adsorption of  $\alpha$ -amylase, A., 1330.
- Holmes, A., thermal history of the earth, A., 588.
- Holmes, A. D., Pigott, M. G., and Moore, W. B., influence of sex on size and composition of tibiae of growing chicks, A., 90.
- Pigott, M. G., Sawyer, W. A., and Comstock, L., vitamins aid reduction of lost time in industry, A., 98.
- and Tripp, F., influence of composition of yellow corn [maize] on effectiveness of a rachitogenic ration, B., 810.
- Holmes, B. E., metabolism of tissues growing in culture. V. Effect of radium on metabolism of cultures of embryonic kidney tissue, A., 747.
- Holmes, C. D., [ore-roasting] furnace, (P.), B., 632.
- Holmes, E. G., variation of  $p_H$  of brain tissue, A., 182.
- Metabolic activity of the cells of the trigeminal ganglion, A., 182.
- Carbohydrate metabolism and function of the grey matter of the central nervous system, A., 741.
- Holmes, E. L. See Morgan, G. T.
- Holmes, F. C. V. See Cunard Steam Ship Co.
- Holmes, F. T., Raman effect in crystalline ammonium chloride, A., 1228.
- Holmes, H. N., uniform [vanadium] catalytic mixtures [for oxidation of sulphur dioxide], (P.), B., 147.
- Removal of sulphur from gasoline, (P.), B., 695.
- Elder, A. L., and Beeman, N., removal of sulphur compounds from petroleum distillates, B., 211.
- Lava, V. G., Dells, E., and Cassidy, H. G., comparative studies on the adsorption behaviour of crude vitamin-A, carotene, and cholesterol, A., 323.
- See also Corbet, R. E.
- Holmes, J. See Strachan, J.
- Holmes, L. G., machines for grinding paints, inks, etc., (P.), B., 96.
- Holmes, R. D. See Britton, E. C.
- Holmes, R. S., base-exchange modifications of a Leonardtown silt loam under fertiliser and crop control, B., 439.
- Holmes, W. J., and Elliott, R., cadmium electrode for storage-battery testing, B., 313.
- Holmes & Co., Ltd., W. C., purification of hydrocarbon motor spirit, (P.), B., 853.
- Cooper, C., and Henshaw, D. M., neutralisation of acid or alkaline constituents in a gas, (P.), B., 455.
- Combustible gases from carbonaceous materials, (P.), B., 613.
- Regeneration of wash oils by distillation, (P.), B., 694.
- See also Cooper, C.
- Holmquist, A. G., relationship between water and glycogen content of the liver, A., 296.
- Relation between sleep and the adrenaline content of the adrenals, A., 642.
- See also Euler, U. S. von.
- Holowaychuk, N., replaceable bases, hydrogen, and base-holding capacity of Alberta soils, B., 34.
- Holroyd, H. B., atomisation of liquid jets, B., 207.
- Holroyd, R. See Imperial Chem. Industries.
- Holschneider, F. See Winterfeld, K.
- Holst, W., new band systems of aluminium hydride, A., 991.
- Holstein, L. S. See New Jersey Zinc Co.
- Holstein & Kappert Maschinenfabrik "Phönix" G.m.b.H., plate heat-exchange apparatus for liquids, (P.), B., 896.
- Holt, H. G., fire protection in industrial buildings, B., 207.
- Holt, H. S. See Du Pont de Nemours & Co., E. I.
- Holt, S. See Gibson, C. S.
- Holt, T. W., and Kilpatrick, A. S., bleaching of textile fabrics [with ozonised air], (P.), B., 344.
- Holter, H., action of rennet, A., 94.
- and Linderstrom-Lang, K., histochemistry of enzymes. III. Proteinases of *Drosophila rotundifolia*, A., 426.
- See also Linderstrom-Lang, K.
- Holthaus, B. See Klimke, W.
- Holthaus, C., determination of moisture in coke, B., 373.
- Holthof, W., volumetric analysis with fluorescent indicators, A., 242.
- Holton, A. L. See Cooke, F.
- Holton, E. C., and Sherwin-Williams Co., base for paints, varnishes, and lacquers, (P.), B., 799.
- Holtz, F., and Steinbrück, R., fructose solutions for parenteral injection, A., 856.
- Holub, L. See Sauerwald, F.
- Holven, A. L., recovery of sucrose from cane molasses, (P.), B., 808.
- Holynski, S., assimilation of phosphorus and of potassium by sprouts and by young seedlings of rye, B., 680.
- Holzappel, C. R. See Du Toit, P. J.
- Holzappel, K. E. E., and Krupp Grusonwerk A.-G., P., grinding body, (P.), B., 369.
- Holzen, H. See Späth, E.
- Holzer, F. J., determination of alcohol in blood, A., 1198.
- Holzer, H., and Reif, W., sensitive test for gold with  $\alpha$ -naphthylamine hydrochloride, A., 366.
- Holzhydrolyse Akt.-Ges., Färber, E., Koch, F., and Specht, H., saccharification of cellulose-containing substances with mineral acids, (P.), B., 280.
- See also Bergius, F., and Färber, E.
- Holzinger, K., phosphorescence of zirconium oxide preparations, B., 188.
- Holzman, M. F. See Sobotka, H.
- Holzmann, E., and Pilat, S. von, occurrence of higher fatty acids in mineral oil distillates. II., B., 772.
- Holzmann Akt.-Ges., Zweigniederlassung Berlin, P., light concrete, (P.), B., 671.
- Holzwarth, C., cellulosic material [abrasion-resisting film], (P.), B., 826.
- Homer, C. E., influence of non-metallic inclusions on corrosion of steels, B., 150.
- Homerberg, V. O. See French, H. J.
- Homès, M. V., penetration of chlorides into root of the turnip (*Brassica campestris*), A., 653.
- Homeyer, A. H. [with Whitmore, F. C., and Wallingford, V. H.], preparation of *tert*-butylacetic [ $\beta$ -dimethylbutyric] acid and derivatives, A., 1274.
- See also Whitmore, F. C.
- Homma, M., effects of various non-specific adsorbents on the hæmagglutinins of the rabbit immunised with goat red-blood cells, A., 624.
- Hommel, O., [variegated] enamel ware, (P.), B., 148.
- Hommelen, M., identification of hexoic [acids], A., 933.

- Hommerberg, C.**, activation by magnesium of phosphatases at low concentration. I., A., 426.
- Hon, H. C.**, pharmacology of *Clerodendron*, A., 421.
- Honcamp, F.**, fish meal as feeding-stuff. VIII. Summary, B., 444. Report of [German] Committee on feeding trials, B., 444. Feeding trials with fish meal for calves and milch cows; summary and discussion, B., 844. Value of fodder sugar and beet slices as fattening feeding-stuff for pigs in comparison with barley groats, B., 763.
- Meier, O., Schramm, W., and Wöhlbier, W.**, influence of washing fresh and ensiled sugar beet leaves on their composition and digestibility and on loss of crude and digestible nutrient so caused, B., 763.
- Sachse, M., Reinmuth, E., and Schulz, H. C.**, fish meal as feeding-stuff. IV. Chemical composition and digestibility of fish meal, B., 444.
- Honda, K.**, new alloy, "stainless invar," B., 470. Bullet-resisting alloys, B., 471.
- and **Hirone, T.**, diamagnetic susceptibility of the hydrogen molecule, A., 890.
- and **Nishiyama, Z.**, tetragonal and cubic martensites, A., 12.
- and **Shimizu, Y.**, change of magnetic susceptibility of platinum, copper, and silver caused by cold-working, A., 1236.
- Honert, T. H. van der**, mechanism of transport of organic materials in plants, A., 197.
- Honess, A. P., and Heyl, G. R.**, temperature-porosity in oil sands, B., 659.
- Honeywell, E. M., and Bills, C. E.**, cerevi-sterol, a sterol accompanying ergosterol, A., 156.
- Honig, P.**, controlling crystallisation [in sugar solutions], B., 88.
- and **Alewijn, W. F.**, determination of electrical conductivity as a means of ascertaining the supersaturation of masscutes, B., 361.
- and **Thomson, W.**, continuous first carbonation [of sugar juice], combined with automatic vacuum filtration, B., 120. Scums (settlings) treatment in decaffeination factories, B., 886.
- Honigsmann, E. J. M.**, empirical control of a simple equation for real gases, A., 118.
- Honn, J. M.** See **Williams, R. J.**
- Honnefelder, K.**, calculation of specific heats of solids, A., 560.
- Honus, O. F.**, graphic method for determining constituents of Portland cement from chemical analysis, B., 148.
- Hoo, C. M. S.** See **Heidelberger, M.**
- Hoo, V.** See **Ma, T. S.**
- Hooley, W. C., and New Jersey Zinc Co.**, manufacture of pigments by wet precipitation, (P.), B., 928.
- Hooft, F. V.** See **Kluyver, A. J.**
- Hoogerheide, J. C.** See **Kluyver, A. J.**
- Hoogveen, A. P. J., and Hoogstraten, C. W. van**, decomposition of  $\omega$ -chloro-acetophenonesemicarbazone, A., 610.
- Hoogstraten, C. W. van.** See **Hoogveen, A. P. J.**
- Hook, I. T., and Amer. Brass Co.**, flux for brazing and welding, (P.), B., 69.
- Hooker, A. H., and Hooker Electrochem. Co.**, cellulosic products, (P.), B., 14.
- Hooker, S. B., and Boyd, W. C.**, alleged transformation of serum-albumin into serum-globulins, A., 175. Alleged transformation of serum-albumin into serum-globulins, A., 521. Quantitative aspect of the hypothetical incorporation of injected antigen in resulting antibody, A., 735.
- Boyd, W. C., Alley, O. E., and Derow, M. A.**, antigenic property of gelatin-diazoarsanilic acid, A., 735.
- Hooker Electrochemical Co.** See **Beanblossom, W. S., Hooker, A. H., and Stuart, K. E.**
- Hoop, J. G.** See **Scott, H.**
- Hooper, F. E., Renfrew, A. G., and Johnson, T. B.**, chemical changes accompanying growth of tubercle bacilli (H 37) on Long's synthetic medium, A., 318.
- Hooper, H. S., and Penobscot Chem. Fibre Co.**, fibre or pulp, (P.), B., 825.
- Hooper, I. F.** See **Brit. Thomson-Houston Co.**
- Hooper, M. A.** See **Pearce, J. N.**
- Hoos, B. G.** See **Schur, M. O.**
- Hootman, J. A.**, Kerr's law at high field strengths, A., 663.
- Hooton, A. J. S., and Johnson & Co., S. H.**, filter presses and dialysing apparatus of the filter-press type, (P.), B., 495.
- Hoover, A.** See **Lochte, H. J.**
- Hoover, C. O.**, removal of acid sludge from viscous hydrocarbon oil, (P.), B., 902.
- Hoover, C. P.**, present status of municipal water softening, B., 366.
- Hoover, K. H., and Assoc. of Amer. Soap & Glycerine Producers, Inc.**, resinous condensation product, (P.), B., 158.
- See also **Segur, J. B.**
- Hoover, S. R.** See **Allison, F. E.**
- Hoover, W. H., Johnston, E. S., and Brackett, F. S.**, carbon dioxide assimilation in a higher plant, A., 327.
- Hope, C.** See **King, C. J.**
- Hope, E., Kersey, R. W. R., and Richter, D.**, benzoyl derivatives of indigotin, A., 1060.
- and **Richter, D.**, benzoyl derivatives of indigotin, A., 75.
- Hopffgarten, E. H. von**, root rot (*Trametes radiciperda*), B., 840.
- Hopkins, B. S., and Quill, L. L.**, use of non-aqueous solvents in the study of the rare-earth group, A., 456.
- See also **Hughes, G., Meints, R. E., Naeser, C. R., and Sherwood, G. R.**
- Hopkins, C. Y.** See **Renshaw, R. R.**
- Hopkins, E. F., and Gourley, J. H.**, ash constituents of the apple during the growing season, A., 757.
- and **Greve, E. W.**, effect of nitrate applications on soluble carbohydrate in apples, A., 198.
- Hopkins, E. S.**, reduction of corrosion in water-pipe, B., 969.
- Hopkins, E. W.**, leaf-wrinkle, a nutritional disorder of soya beans, B., 644.
- and **Fred, E. B.**, influence of various nitrogenous compounds and mannitol on nodule formation by clover, A., 647.
- Wilson, P. W., and Peterson, W. H.**, influence of potassium nitrate on nodule formation and nitrogen fixation by clover, B., 201.
- Hopkins, (Sir) F. G.**, atomic physics and vital activities, A., 111. Chemical aspects of life, A., 1073.
- Hopkins, H. H.** See **Du Pont de Nemours & Co., E. I.**
- Hopkins, M. B., and Standard Oil Development Co.**, extraction of [insecticidal] ingredients from heat-sensitive raw materials [pyrethrum flowers], (P.), B., 647.
- Hopkins, R. H., and Carter, W. A.**, influence of slack malt on composition of wort, B., 280.
- Cope, G. F., and Green, J. W.**, barley diastase, A., 1080.
- Hopkins, S. J., and Wormald, A.**, phenyl-carbimide-protein compounds and their immunological properties. I. II. Gelatin compounds, A., 846, 1317.
- Hopkinson, F.**, degradation of coal, B., 1040.
- Hopkinson, H., Britton, J. G., and Williams, T. R.**, [flame-proof] plastic composition, (P.), B., 1020.
- Hopmann, O.**, occurrence and micro-chemistry of amyloids in plant-cell membranes, A., 652.
- Hoppe, H. (Berlin)**, radiation from glowing oxides and oxide mixtures in the visible spectrum, A., 206.
- See also **Skaupy, F.**
- Hoppe, Hermann**, process and apparatus for ensilage of green fodder, (P.), B., 283.
- Hoppe-Seyler, F. A.**, lysine excretion in urine in cystinuria, A., 415.
- Hoppe-Seyler, G., and Lang, K.**, determination of connective tissue substance (collagen) in organs, A., 524.
- Hopper, E. B.** See **Darrow, D. C.**
- Hopper, T. H.**, combustion train for determination of total carbon in soils, B., 402.
- Hopwood, J. M.** See **Smith, G. W.**
- Hordh, U.**, examination for benzoic acid in food products, B., 364.
- Horel, J.** See **Nehovidský.**
- Horesch, A. J.** See **Gerstenberger, H. J.**
- Hori, I., Mori, M., Morimura, M., and Tomikawa, S.**, phosphatase of body organs. I. Effect of manganese salts on phosphatase of kidney, digestive organs, and digestive juices, A., 635.
- Hori, M.**, acidimetry of gastric juice. II. Determination of free hydrochloric acid in human gastric juice. III. Error of titrated total acidity of human gastric juice, A., 849. Accuracy of clinical methods of determining urinary protein, A., 969.
- Hori, S.**, ammonium sulphate or salts containing it, (P.), B., 785.
- Hori, T.**, band spectrum of potassium hydride, A., 660. Wavy emission continuum of potassium hydride, A., 992.
- Hori, W.**, monophosphatases of animal organs and blood, A., 426.
- Horiguchi, H.** See **Inoue, H.**
- Hori, S.**, stencil sheet, (P.), B., 700.
- Horikosi, T.** See **Taketomi, N.**
- Horio, M.**, effect of auxochromes, A., 763.
- Horioka, M.**, life of electric heating wires, B., 1064.
- Horiuchi, R.**, mechanism of formation of  $\alpha$ -terpineol from linalool, A., 954.
- Horiuchi, T.**, ash of washed coal, B., 690.
- Horiuti, J.**, relation between solubility and diffusion coefficient of gases in liquids, A., 220. Determination of heat of solution of gases, A., 229. Vibration structure of the carbon tetrachloride spectrum, A., 998.
- Horn, A.** See **Durau, F.**
- Horn, A. G. van.** See **Dawson, J. R.**

- Horn, E., Póányi, M., and Style, D. W. G., isolation of free methyl and ethyl by reaction between sodium vapour and methyl and ethyl bromides, A., 1269.
- Horn, F., degradation of arginine to citrulline by *Bacillus pyocyaneus*, A., 753. Behaviour of cyanamide in the animal body, A., 1199.
- Horn, Freeman, corrosion research on light materials, B., 152.
- Horn, O., chemical changes in pinewood caused by larvae of *Hylotrupes bajulus*, B., 508.  
See also Fischer, Franz, and Hartner-Seberich, R.
- Hornbrook, P. R., extraction of oil, (P.), B., 435.
- Hornbuckle, W. P., and Craig, R. F., bleaching apparatus [for yarn in package form], (P.), B., 745.
- Horne, G. H., Lissman, M. A., and Internat. Precipitation Co., gas-cleaning and heat-transfer apparatus, (P.), B., 609. Means for treating gases, (P.), B., 770.
- Horne, W. H., Cox, R. F. B., and Shriner, R. L., *p*-aminophenylurethanes as local anaesthetics, A., 1044.  
and Shriner, R. L., local anaesthetic action of *p*-aminobenzoates of diethylaminoethoxy-alcohols, A., 977.
- Horner, C. K. See Burk, D.
- Horner, H. See Trotman, S. R.
- Horning, B. S., technique of micro-incineration: its advantages in histochemical study of normal and malignant tissues, A., 180.  
and Scott, G. H., distribution and changes in inorganic salts during embryonic development of the chick, A., 855.
- Hornsey, J. W., and Granular Iron Co., [reduction] treatment of iron ores, etc., (P.), B., 67.
- Horovitz-Vlassova, L. M., and Novotelnov, N. V., new sporing lactic acid bacterium (*Lactobacillus sporogenes*, nov. sp.), A., 536.  
and Rodionova, E. A., acetylmethyl-carbinol fermentation, A., 537.
- Horowicz, Z., union of biocolloids. XIV. Adsorption of starch on various emulsion surfaces, A., 463.
- Horrobin, S. See Imperial Chem. Industries.
- Horsfall, J. G., red oxide of copper as a dust fungicide for combating damping-off by seed treatment, B., 245.  
See also Pirone, P. P.
- Horsfield, B. T., and Aluminum Co. of America, treatment of metallic oxides; purified metallic oxide, (P.), B., 625.
- Horsley, G. F. See Imperial Chem. Industries.
- Horst, E. See Hessenbruch, W.
- Horst, J. H. van der. See De Jong, H. G. B.
- Horst, W. P. ter, and Naugatuck Chem. Co., [antioxidant] treatment of rubber, (P.), B., 559.  
and Rubber Service Laboratories Co., triaryl phosphates, (P.), B., 261. Vulcanised rubber compounds, (P.), B., 723. Manufacture of reaction products of an amine salt of an alkyl-dithiocarbonic acid [amine alkyl-dithiocarbonates] with benzthiazyl chlorothiocarbonate [-formate]; [vulcanisation accelerators], (P.), B., 907. Continuous preparation of disubstituted guanidines, (P.), B., 956.
- Horsters, H., thyreotropic hormone of the anterior pituitary gland, A., 431.
- Hortala, A. See Canals, E.
- Hortenau, H. von, investigation of oil, fat, and bituminous films by sandblasting, B., 398.
- Horton, H. V., photographic sensitisers, B., 605.
- Horvitz, L. See Flood, E. A.
- Horwitt, M. K., Sherman, H., and Barbour, H. G., heat regulation and water exchange. XV. Water content of the rat liver in Shiga vaccine fever and amidopyrine antipyresis, A., 858.
- Horwitz, A., bases for use in manufacture of [lubricating] greases, (P.), B., 675.
- Horwood, M. P., Gould, B. S., and Schwachman, H., indices of sanitary quality of swimming-pool waters, B., 286.
- Hory, E. See Müller, Eugen.
- Hosaeus, W., jun. See Lock, G.
- Hose, C. G. B. See Bloomfield, G. F., and Farmer, E. H.
- Hosemann, R. See Hevesy, G. von.
- Hoshall, E. M. See Jenkins, G. L.
- Hoshijima, S., phosphorescence in human tissues. I. Proof of the phosphorescence in normal human tissues and its measurement. II. Phosphorescence of human concretions and pathological calcific tissues, and effect of calcination temperature on phosphorescence, A., 411, 736.
- Hoshino, T., synthetical experiments in the indole group. IX. Synthesis of indolenines, A., 164.  
and Tamura, K., synthetical experiments in the indole group. X. Synthesis of the eserine ring-system, A., 164.
- Hosizima, T., influence of bile acids on calcium metabolism. IV. Normal and thyroparathyroidectomised dogs, A., 530.
- Hosking, J. R., essential oils from Samoa, B., 250.
- Hosking, J. S., determination of sulphate in soil extracts, B., 321.
- Hoskins, J. K., most probable numbers of *B. coli* in water analysis, B., 686.
- Hoskins, W. M., toxicity and permeability. I. Toxicity of acid and basic solutions of sodium arsenite to mosquito pupæ, B., 244.  
See also Michelbacher, A. E.
- Hossain, M. A., disintegration of bones by the alkali method, and their use as fertilisers, B., 680.
- Hostettler, H., determination of gases in cheese, B., 330.  
See also Kohlschütter, V.
- Hothersall, A. W., adhesion of electro-deposited coatings to steel, B., 922.
- Hoton, L., glycerides of butter, B., 237.
- Hotta, S., fat deposition in depancreatised dogs and the effect on it of insulin and sugar, A., 302. Significance of highly unsaturated fatty acids in organs, A., 306. Effect of drugs causing deposition of fat in the organs on composition of body-fat, A., 861.
- Hottenroth, V., characteristic of [wood] pulps, B., 1050.
- Hou, T. P. See Hsieh, W. C.
- Houben, J., and Fischer, Walter, preparation of cyclic nitriles by catalytic degradation. II. Direct cyanogenation of cyclic hydrocarbons and phenolic ethers, A., 501.  
and Pfankuch, E., camphor and terpenes. IX. Transformation of camphor and optically active systems of the camphor series into their spatial antipodes. X. Cause, source, and elimination of partial racemisation in the conversion of *D*- into *L*-camphor, A., 613, 1300.
- Houch, J. W. See Pako Corp.
- Houck, R. C. See Sheppard, S. E.
- Houdremont, E., solubility of carbon in  $\alpha$ -iron and variations in properties of commercial iron produced by heat treatment below the A1 point, B., 389.
- Bennek, H., and Sehrader, H., relation between quenching power and stability during tempering of special steels containing difficultly soluble carbides: vanadium steels, B., 831.  
and Schafmeister, P., prevention of grain-boundary corrosion of steels with 18% Cr and 8% Ni, B., 1060.  
and Sehrader, H., temper-brittleness of steel, B., 831.  
and Wasmuth, R., non-rusting and heat-resisting 34% chromium alloy cast irons, B., 349.
- Houdry, E. See Houdry Process Corp.
- Houdry Process Corporation, and Houdry, E., catalytic conversion of hydrocarbons, (P.), B., 340.
- Houget, J. See Cahn, T.
- Hough, A., organic nitrates applicable in explosives industry, (P.), B., 45. Explosive, (P.), B., 573.
- Dufford, J. R., and Leonhard, W. C., treatment of wood pulp for nitration, (P.), B., 700.
- Hough, S. H., and Privett, J. B. J., hydro-extractors, (P.), B., 3.
- Houghland, G. V. C., and Schricker, J. A., effect of potash on starch in potatoes, B., 760.
- Houghton, A. C., and Miller, J. G., manufacture of sodium carbonate from salt residues left by evaporation of alkaline waters, (P.), B., 105.
- Houghton, A. M., and Gulf Refining Co., cracking of petroleum hydrocarbons, (P.), B., 378.
- Houghton, H. W., and Safety Fumigant Co., fumigant gas-producing composition, (P.), B., 942.  
See also Finnell, H. H.
- Houghton, W. F. See Ferris, S. W.
- Houlis, L. D., gas producer, (P.), B., 8.
- Haupt, C. S., removal of enamel from a metal base, (P.), B., 924.
- Houseman, M. R. See Keulegan, G. H.
- Houser, H. E. See Hunter, R. M.
- Houser, J. S. See Cutright, C. R.
- Houssay, B. A., Biasotti, A., Di Benedetto, Elena, and Rietti, C. T., diabetic effect of anterior pituitary extracts in the dog, A., 539.
- Mazzocco, P., and Biasotti, A., influence of preputiary extract on weight of the thyroid, A., 869. Pituitary and thyroid. VIII. Action of extract of the anterior pituitary lobe on weight of the thyroid. XVI. Action of extract of the anterior pituitary on blood-iodine, A., 986, 1086.
- Novelli, A., and Sammartino, R., pituitary and thyroid. XV. Thyroidectomy and the thyroid-exciting action of the anterior pituitary of diverse species, A., 986.
- Houston, D. F., azeotropic mixture of sec.-butyl alcohol and sec.-butyl bromide, A., 1239.  
See also Ashton, F. W.
- Houston, J., use of amyl alcohol for milk-testing, B., 408.
- Houston, W. V., theory of the Raman rotation spectra, A., 1228.
- Houstoun, R. A., new method of colorimetry, A., 1265.

- Houtermans, *F. G.*, absorption measurements and other optical investigations of radiating substances by the intermittent light method, A., 760.
- Houtz, *R. C.*, and Adkins, *H.*, catalysis of polymerisation by ozonides. II., A., 600.
- See also Norman, *A. G.*
- Houwink, *R.* See De Beer, *J. H.*
- Hovde, *F. L.* See Thompson, *H. W.*
- Hovey, *A. G.*, alkylid resins as bonding materials, B., 638.
- See also Brit. Thomson-Houston Co.
- Hovey, *R. W.*, apparatus for making [paper] pulp, (P.), B., 264.
- How, *A.*, grinder [for bacteria], A., 754.
- How, *H. W.*, and Struthers Wells-Titusville Corp., petroleum distillation system, (P.), B., 295.
- Howard, *C. D.*, chronic poisoning by oxalic acid; volatilisation of oxalic acid from aqueous solution, A., 357.
- Howard, *C. S.*, determination of total dissolved solids in water analysis, B., 254.
- Howard, *D. H., jun.*, and Browne, *A. W.*, behaviour of hydro-nitrogens and their derivatives in liquid ammonia. VII. Formation of hydrazine by thermal action of incandescent filaments immersed in liquid ammonia. VIII. Influence of pressure on yields of hydrazine obtained by pyrolysis of liquid ammonia, A., 683, 1021.
- Howard, *F. A.*, Lewis, *W. K.*, Noel, *H. M.*, and Standard Oil Development Co., apparatus for distilling hydrocarbon oils, (P.), B., 539.
- Loomis, *N. E.*, and Gasoline Products Co., [pyrogenetic] conversion of [heavy hydrocarbon] oil, (P.), B., 378.
- and Standard Oil Development Co., preparing and cracking hydrocarbon materials, (P.), B., 53. Pyrolytic conversion of petroleum oils, (P.), B., 854.
- Howard, *G. C.*, lignin derivatives, (P.), B., 57. Treatment of waste sulphite [-pulp] liquor, (P.), B., 265.
- Howard, *G. F.* See Heilbron, *I. M.*
- Howard, *H.*, means for measuring and controlling the density of suspensions of solids in liquids, (P.), B., 897.
- Howard, *H. C.*, and Amer. Anode, Inc., treatment of [rubber] latex, (P.), B., 80.
- Howard, *H. W.* See Kelly, *T. L.*
- Howard, *J.*, relation between van der Waals and activated adsorption on chromium oxide gel, A., 1112.
- See also Hammick, *D. L.*
- Howard, *L. E.*, spongy rubber or similar material, (P.), B., 32.
- Howard, *M. L.* See Vinal, *G. W.*
- Howard, *M. R.*, composite sheet [for playing cards, etc.], (P.), B., 862.
- Howard, *N. F.*, Brannon, *L. W.*, and Mason, *H. C.*, insecticides for control of Mexican bean beetle, B., 484.
- and Fletcher, *F. W.*, effects of various commercial calcium arsenates on bean foliage, B., 1074.
- Howard, *R. G.* See Fairhall, *L. T.*
- Howard, *W. R.*, and Universal Oil Products Co., treatment [cracking] of hydrocarbons, (P.), B., 378. Conversion of hydrocarbon oils, (P.), B., 616. Treatment of hydrocarbons, (P.), B., 854.
- See also Egloff, *G.*
- Howards & Sons, Ltd., perfumes, perfumed cosmetics, perfumed soaps, and analogous preparations, (P.), B., 92.
- Blagden, *J. W.*, and Clark, *G. C. II.*, cyclohexylcyclohexanol and homologues thereof, (P.), B., 955.
- Blagden, *J. W.*, and Huggett, *W. E.*, compounds from terpene alcohols and hydroaromatic alcohols, (P.), B., 812. Isolation and purification of terpene alcohols and hydroaromatic alcohols or separating them from other substances, (P.), B., 857.
- Read, *J.*, and Grubb, *W. J.*, optically active menthols, (P.), B., 907.
- Howarth, *J. T.*, Maskill, *W.*, and Turner, *W. E. S.*, rate of reaction between silica and sodium carbonate at different temperatures, and process of vitrification, A., 787.
- Howden, *P.* See Brit. "Rema" Manufg. Co.
- Howden, *W. H.* See Howden & Co., Ltd., J.
- Howden & Co., Ltd., J., and Howden, *W. H.*, centrifugal separators, (P.), B., 97. Centrifugal separators [for gases], (P.), B., 208.
- Howe, *C. E.*, and Allen, (*Miss Mildred*), absolute measurement of the Cu La line, A., 201.
- Howe, *F. J. O.*, compounded structures of sheet material such as splinterless glass, (P.), B., 20.
- Howe, *M. A.* See Sullivan, *B.*
- Howe, *P. E.* See Earle, *I. P.*
- Howe, *W. T.*, rotary kiln heat balance, B., 943.
- Howell, *E. T.* See Du Pont de Nemours & Co., E. I.
- Howell, *J., jun.*, relation of Western yellow pine seedlings to the reaction of the culture solution, A., 327.
- Howell, *O. R.*, system water-phenol. II. Viscosities, A., 120.
- and Handford, *C.*, system water-phenol. III. Electrical conductivities, A., 561.
- and Robinson, *H. G. B.*, electrical conductivities of liquid mixtures of phenol-aniline, phenol-*p*-toluidine, and phenol-*m*-cresol, A., 1015.
- Howell, *S. F.* See Sumner, *J. B.*
- Howes, *D. A.*, use of synthetic methanol as motor fuel, B., 532.
- Howes, *H. W.*, glass-making moulds, B., 749.
- Howes, *R. T.*, Anderson, *A. A.*, and Snyder, *L. A.*, insulation of high voltages in electrical precipitators [for oil], (P.), B., 875.
- Howie, *G.* See Cumming, *W. M.*
- Howis, *C. C.* See Chapman, *A. W.*
- Hawk, *B. W.*, and McElvain, *S. M.*, structure of  $\alpha$ -benzoyl- $\alpha$ -bromo-esters, A., 1049.
- See also De Turk, *E. E.*
- Howland, *L. H.*, and Naugatuck Chem. Co., [antioxidant] treatment of rubber, (P.), B., 80. Treatment of rubber [to retard deterioration], (P.), B., 481. Treatment of rubber [for preservation], (P.), B., 559.
- Howson, *L. R.*, sewage treatment in America, B., 206.
- Hoyer, *H.* See Pfeiffer, *P.*
- Hoyt, *L. F.*, determination of refractive index of glycerols by the immersion refractometer, B., 876.
- Hoyt, *W.* See Burrows, *E. H.*
- Hozaki, *N.* See Shikata, *M.*
- Hrdina, *L.* See Andrews, *E.*, and Schönherr, *R.*
- Hrubeš, *P.* See Novák, *V.*
- Hrynakowski, *C.*, and Adamanis, *F.*, thermal equilibrium of acetanilide and certain organic compounds, A., 1119.
- and Kalinowski, *K.*, association of some salicylic esters and deformation of their molecules deduced from their dipole moments, A., 1001.
- and Nowatke, *W.*, structure and permeability of collodion membranes, A., 776.
- Hsia, *A. W.*, thermal properties of substances of high mol. wt., A., 17.
- Hsia, *C. T.* See Sah, *P. P. T.*
- Hsiao, *C. C.*, and Wilson, *E. O.*, effect of  $pH$  value on combining capacity of hide powder for acid and basic dyes, B., 161.
- Hsieh, *C. Y.*, occurrence of sphacrosiderite in a sub-bituminous coal from Hsian coal mine, Liaoning Province, A., 929. Microstructures of Chinese anthracites, A., 1269.
- Hsieh, *W. C.*, Wilson, *E. O.*, and Hou, *T. P.*, purification of brine by ammoniation, B., 304.
- Hsiung, *S. Y.* See Sah, *P. P. T.*
- Hsu, *C. H.*, and Wu, *H.*, loss of weight of fibrinogen on coagulation, A., 1065.
- Hu, *T.*, Szechuen Yin-Er [white fungus], B., 169.
- Hua-chih, *C.*, and Conrad-Billroth, *H.*, optical investigation of perylene and its derivatives. IV. Ultra-violet absorption spectrum of 1:12-derivatives and isomerides, A., 552.
- Huang, *T. C.*, and Su, *K. C.*, thermodynamic properties of real gases as explicit functions of the pressure and temperature, A., 770.
- See also Su, *K. C.*
- Hubacher, *M. H.*, stirrer drive for laboratory use, A., 481.
- and Rubber Service Labs. Co., vulcanisation of rubber, (P.), B., 33, 116.
- Hubbard, *D.* See Carroll, *B. H.*
- Hubbard, *D. O.* See Beryllium Development Corp.
- Hubbard, *R. S.*, precipitation of small amounts of potassium as potassium sodium cobaltinitrite, A., 583.
- Munford, *S. A.*, and Tyner, *J.*, gastric secretion and alkaline tide in urine, A., 1068.
- and Sly, *G. F.*, determination of protein in serum, A., 1181.
- Hubbell, *R. B.*, and Bunting, *R. W.*, calcium and phosphorus of saliva in relation to dental caries, A., 302.
- Hubble, *D.*, influence of the endocrine system in blood disorders, A., 1069.
- Huber, *B.*, water-permeability of protoplasm, A., 437.
- Huber, *H.*, determination of citric acid in milk, fruit juices, and cider, B., 569.
- Huber, *P.*, band spectrum of sulphur, A., 199.
- Huber, *W.*, sulphonation of aromatic amines by the so-called "baking process," A., 57.
- Hubers, *P. J.* See Jansen, *B. C. P.*
- Hubert, *R.*, effect of ultra-violet light on cholesterol metabolism. III. Methods, A., 742.
- Hubertus, *R.* See Agde, *G.*
- Hubin, *M. L.*, spectra of diatomic sulphur molecules, A., 1221.
- Hubler, *W. G.*, [copper] pyrite flotation at Aldermac, Quebec, B., 470.

- Hubner, H. J. See Kohn, H.
- Hucks, R. T. See Du Pont de Nemours & Co., E. I.
- Hudgins, L. C., and Cameron, H. A., black oxidised finishing [of copper and brass], B., 109.
- Hudson, F. L. See Olson, A. R.
- Hudson, H., Wolfrom, M. L., and Lowry, T. M., rotatory dispersion of organic compounds. XXIII. Rotatory dispersion and circular dichroism of aldehydic sugars, A., 1231.
- See also Lowry, T. M.
- Hudson, J. C., experimental methods for study of corrosion, B., 348.
- Hudson, J. C. (Harvard), and Vogt, H. G., K series spectrum of tungsten, A., 656.
- Hudson, L. See Kletzien, S. W.
- Hudson, O. F., wear in the polishing of plated and other surfaces, B., 971.
- Huebner, E. O. See Schuette, H. A.
- Hübner, H. J., intensity measurements with the members of the principal series of rubidium and caesium, A., 880.
- Hückel, E., significance of so-called specific exaltations of molecular refraction and molecular dispersion, A., 211. Free radicals of organic radicals; quantum-theoretical contributions to the problem of aromatic and unsaturated compounds. IV., A., 890. Theory of free radicals of organic chemistry, A., 1138.
- Hückel, R. See Lucke, H.
- Hückel, W., and Ackermann, Paul, change of molecular structure during chemical reaction. II. Rearrangement of butyl bromides, A., 372.
- and Blohm, M., stereochemistry of dicyclic ring systems. VII. Stereoisomerism of decahydronaphthalene and its derivatives. IV. 9-Substituted decahydronaphthalenes, A., 603.
- Danneel, R., Gross, A., and Naab, H., stereochemistry of dicyclic ring systems. VI. Stereoisomerism of decahydronaphthalene and its derivatives. III. Stereoisomeric 1-substituted decahydronaphthalenes, A., 603.
- Gercke, A., and Gross, A., cyclodecane, A., 494.
- and Naab, H., stereochemistry of dicyclic ring systems. VIII.  $\Delta^{1,2}$ . Octahydronaphthalene, A., 704.
- and Rassmann, W., vapour-pressure measurements with isobutane, A., 370.
- and Schnitzspahn, L., stereochemistry of dicyclic ring systems. IX. Derivatives of cyclopentanocycloheptane, A., 1163.
- Hühn, W. See Reihlen, H.
- Huelsen, W. A., efficiency factors and their use in determining optimum fertiliser ratios, B., 118.
- Hülsmeier, P. See Zipt, K.
- Huenemoeder, (Miss) M. See Hauser, E. A.
- Hürbin, M. See Ruzicka, L.
- Huerre, R., black mercury sulphide, B., 963.
- Hüttig, G. F., and Brüll, J., active oxides. LVIII. Change in catalytic activity of an aluminium oxide hydrate gel during ageing, A., 130.
- and Köbl, F., active oxides. LXVII. Aluminium oxide and its additive products with water (thermodynamics of the equilibrium in systems with two solid phases), A., 1245.
- Hüttig, G. F., and Herrmann, Erwin, active oxides. LX. Dispersoid analysis of precipitates of zinc oxalate dihydrate prepared in different ways, A., 348.
- and Lehmann, E., active oxides. LVII. Rate of decomposition of zinc oxalate into zinc oxide, carbon dioxide, and carbon monoxide, A., 233.
- and Meller, A., absorbent power of zinc oxalate partly decomposed by heat with respect to methyl alcohol, A., 1009.
- and Möldner, H., active oxides. LXIII. Specific heats of crystalline zinc hydroxide and the calculation of the affinity between zinc oxide and water, A., 560.
- and Schmeiser, H., active oxides. LXVIII. Solubility of active zinc oxide in ammonia, A., 1111.
- and Strial, K., active oxides. LV. Dehydration of hydro-gels in presence of different gases, A., 124.
- and Strial, K. [with Kittel, H.], active oxides. LXII. Chronic oxide as catalyst for the decomposition of methyl alcohol, A., 681.
- See also Kittel, H., Kostelitz, O., and Meller, A.
- Hüttinger, W. See Lüers, H.
- Huff, L. C., and Universal Oil Products Co., cracking of [petroleum] oil, (P.), B., 259, 456. Oil gas, (P.), B., 419. Dephlegmation [tower], (P.), B., 769. Hydrocarbon oil conversion, (P.), B., 854.
- Huff, W. J., purification of gas, (P.), B., 180.
- Huffelmann, K., and Schröder, Hugo, coke oven, (P.), B., 339.
- Huffman, C. F., Robinson, C. S., Duncan, C. W., Lamb, L. W., and Mason, M. F., phosphorus requirement of dairy cattle. I. Phosphorus requirement for growth and reproduction from three months of age to first calving, B., 890.
- Huffman, E. H. See Gilbert, E. C.
- Huffman, H. M., and Borsook, H., thermal data. I. Heat capacities, entropies, and free energies of seven organic compounds containing nitrogen, A., 27.
- See also Borsook, H., and Parks, G. S.
- Huffman, W. D., and Gen. Motors Corp., [red] ink, (P.), B., 31.
- Hufford, M. E., ionisation of hydrogen by positive ion impacts, A., 202.
- Hugel, G., relations between viscosity and constitution of hydrocarbons of high mol. wt., B., 292.
- and Frangopol, G., structure of pitch, B., 659.
- and Friess, J., hydrogenation of constituents of tar oils (1) in presence of sodium hydride as catalyst, (2) under high pressure and at high temperature. II., B., 135.
- and Kohn, effect of high temperatures and pressures on unsaturated hydrocarbons. I. II. Hexadecene, A., 254, 371.
- Huger, S. P. See Carothers, J. N.
- Huggett, W. E. See Howards & Sons, Ltd.
- Huggins, M. L., arrangement of atoms in crystals, A., 213. Two rulers for use in analysing rotating-crystal photographs, A., 247.
- Hughes, A. H., electrical and mechanical properties of protein films, A., 222. Behaviour of surface films of unsaturated compounds, A., 565.
- Hughes, A. H., and Rideal, E. K., rate of oxidation of monolayers of unsaturated fatty acids, A., 679.
- See also Schulman, J. H.
- Hughes, A. L., angular distribution of electrons scattered in mercury vapour, A., 1222.
- and McMillen, J. H., elastic electron scattering in neon, A., 761. Inelastic electron scattering by helium atoms, A., 881.
- Hughes, D. See Smith, Eric R.
- Hughes, E. B. See Lyons & Co., Ltd., J.
- Hughes, E. D., influence of poles and polar linkings on the course pursued by elimination reactions. XIV. Action of *tert.*-amines on triphenylmethyl halides, A., 262.
- and Ingold, C. K., influence of poles and polar linkings on the course pursued by elimination reactions. XIII. Decompositions of quaternary ammonium salts containing the methyl, benzyl, and benzhydryl groups. XV. Dynamics of the elimination of olefines from quaternary ammonium compounds, A., 262, 701.
- Ingold, C. K., and Patel, C. S., influence of poles and polar linkings on the course of elimination reactions. XVI. Mechanism of the thermal decomposition of quaternary ammonium compounds, A., 701.
- See also Brady, O. L.
- Hughes, G., and Hopkins, B. S., rare earths. XXXIIIa. Basicity of illinium and yttrium. XXXIX. Transference numbers of the chlorides of neodymium, samarium, and gadolinium. I., A., 1009.
- and Pearce, D. W., rare earths. XL. Magnetic susceptibilities of europium, [gadolinium], and ytterbium salts, A., 1009.
- Hughes, H. V., balance for rapid determination of surface tension, A., 586.
- Hughes, J. M., Carter, J. H., Perkins, L. B., and Sharon Steel Hoop Co., substitute for natural feed ore [in manufacture of steel], (P.), B., 873.
- Hughes, J. R., and Emden, V. C., separation of borax [from shale], (P.), B., 823.
- Hughes, O. L., and Hartley, (Sir) H. B., effect of small water additions on conductivity of electrolytes in non-aqueous solvents, A., 354.
- See also Clark, D. N., and Mead, T. H.
- Hughes, R. C. See Jones, H. D.
- Hughes, S., and Amer. Smelting & Refining Co., extraction and separation of cadmium [from the dusts], (P.), B., 592.
- Teats, R., and Amer. Smelting & Refining Co., recovering thallium, (P.), B., 593.
- Hughes, T. A., Shrivastava, D. L., and Malik, K. S., blood-cholesterol in osteomalacia, A., 1323.
- Hughes, W. J., and Gen. Zeolite Co., automatic filter-wash control, (P.), B., 897.
- Hughes & Lancaster, Ltd., and Lancaster, W. D., wool-washing machines and analogous apparatus, (P.), B., 383.
- Hughes Tool Co. See Fletcher, H. W.
- Hughson, W. G. See Joiner, W. A.
- Hugill, W., Ellerton, H., and Green, A. T., action of carbon monoxide on refractory materials. III., B., 147.

- Hukumoto, Y., continuous absorption spectrum of some polyatomic molecules. I. and II., A., 336, 661.
- Hukuti, G. See Nakamura, Harukiti.
- Hulbert, H. W., Bristol, R. S., and Benjamin, L. V., methods affecting efficiency of chlorate weed killers, B., 360.
- Hulbert, R., ammonia-chlorine treatment [of water] yields nitrites in effluent, B., 1088.
- Hulett, G. A., and Elliott, R. B., diffusion in standard cells, A., 354.  
See also Elliott, R. B., and Johnson, Clyde R.
- Hull, A. J., and Wyoming Platinum & Gold Mining Synd., recovering platinum, (P.), B., 634.
- Hull, A. W. See Brit. Thomson-Houston Co.
- Hull, H. See King, E. J.
- Hull, W. A., tunnel kiln, (P.), B., 368.
- Hulme, A. C., alcohol as a sugar extractant in plant-tissue analysis, A., 652.
- Hulme, H. R., internal conversion coefficient for radium-C, A., 110.  
See also McDougall, J.
- Hulme, W. See Singleton, W.
- Hulpieu, H. R. See Turner, B. B.
- Hulse, S. H. See Wilson, Amyuit L.
- Hulslander, R. D., and Firestone Tire & Rubber Co., apparatus for feeding powdered material, (P.), B., 638.
- Hulst, L. J. van der. See Waterman, H. I.
- Hultgren, R. See Pauling, L.
- Hulthén, E., and Rydberg, R., predissociation and pressure effects in band spectrum of aluminium hydride, A., 439.  
See also Grundström, B.
- Hulton, H. F. E. See Baker, J. L.
- Hulubei, H., multiple Compton effect, A., 108.  
and Cauchois, (Mlle.) Y., weak lines in K spectra of rhodium and molybdenum, A., 548. X-Ray emission spectra of gaseous elements: K spectrum of xenon (emission and absorption), A., 1221.  
See also Cauchois, (Mlle.) Y.
- Humboldt-Deutzmotoren Akt.-Ges., gas producer for vegetable waste, (P.), B., 579. Tube mills, (P.), B., 688.
- Hume, A. N. See Fuhr, L. F.
- Hume, J. See Bradley, R. S., and Cooper, M. M.
- Hume-Rothery, W., graphical method for converting weight percentage compositions of ternary systems into atomic or molecular percentages, A., 1111.
- Hummel, C., electric-discharge tubes for generating ultra-violet rays, (P.), B., 353.  
See also Aichelin, J.
- Hummelshelm, C. H., determination of veratrine, A., 1197.
- Humoller, F. L. See Austin, W. C.
- Humphrey, E. P., gyro-separator, (P.), B., 769.
- Humphrey, G. C. See Hart, E. B.
- Humphrey, J. W., and Hercules Powder Co., refining of turpentine, (P.), B., 115. Refining of rosin, (P.), B., 115, 721, 756, 978. [Neutral] rosin oils, (P.), B., 115. Hydrogenated resin esters, (P.), B., 640.
- Humphreys, C. J., and Meggers, W. F., first spectrum of xenon, A., 200.  
See also De Bruin, T. L., and Meggers, W. F.
- Humphreys, F. E., and Phillips, H., examination of leather for the presence of extractable chromium compounds, B., 1071.
- Humphreys & Glasgow, Ltd., and Glasgow, A. G., water-gas, (P.), B., 580.  
and Griggs, A. R., manufacture of gas by complete gasification, (P.), B., 851. Water-gas, (P.), B., 1044.  
and Helps, G., water-gas, (P.), B., 339.
- Humphries, C. H., and Metals Protection Corp., [maintenance of] chromium-plating [baths], (P.), B., 313.
- Hun, (Mlle.) O., cryoscopic study of par-aldehyde, ether, and acetone in solutions of sodium acetate, A., 223.  
See also Bourion, F.
- Hund, W. J. See Rosenstein, L.
- Hundeshagen, F., laws regulating behaviour of organic dyes towards proteins, proteids, albuminoids, and nucleins, A., 172.
- Hunold, G. A. See Becker, F.
- Hunsaker, C. H., cellular stone-like material [from blast-furnace slag, etc.], (P.), B., 63.
- Hunscher, H. A., Donelson, F., Nims, B., Kenyon, F., and Macy, I. G., metabolism of women during reproductive cycle. V. Nitrogen utilisation, A., 304.
- Hunsdiecker, H., and Vogt, Egon, soap-like preparations, wetting, dispersing, and penetrating agents, and protective colloids, (P.), B., 777.
- Hunt, A. P. See Batterman, H., and MacLaehlan, J. C.
- Hunt, C. H., Record, P. R., Wilder, W., and Bethke, R. M., factors influencing vitamin-B and -G content of hays, B., 986.
- Hunt, F. R. W., and Hinds, G. H., rate of burning of colloidal propellants, B., 125, 653.
- Hunt, G. A. See Rakietin, M. L.
- Hunt, G. M., Truax, T. R., and Harrison, C. A., fireproofing wood, B., 148, 749.
- Hunt, H., and Boneyk, L., liquid ammonia as a solvent. III. Solubility of inorganic salts at 25°, A., 1111.
- Hunt, H. B. See Edsall, J. T.
- Hunt, R., and Renshaw, R. R., effects of quaternary ammonium and analogous compounds on the autonomic nervous system, A., 745. [Pharmacology of] ethers and thio-ethers of triethylammonium compounds, A., 745.
- Hunter, E. See Clifford, J. L.
- Hunter, E. C. E., and Partington, J. R., dielectric polarisation. II.—VII., A., 210, 555.
- Hunter, F. L., jun., and De Forest Radio Telephone & Telegraph Co., [degassing agent for] electron-discharge devices, (P.), B., 25.
- Hunter, G. J. E., essential oil of white pine (*Podocarpus dacrydiodes*), B., 123.
- Hunter, J. E., Dutcher, R. A., and Kandel, H. C., does vitamin-A possess vitamin-D-sparing properties when fed to growing chicks? A., 99.
- Hunter, J. N., and Gulf Pipe Line Co. of Oklahoma, dehydration of crude oil emulsions, (P.), B., 852.
- Hunter, L., and Hyde, F. F., new reagent for determination of iodine values, B., 1065.
- Hunter, R. F., single electron linking, A., 11. Directive effect of [nuclear] substituents on cyclisation of *s*-diarylthiocarbamides. I. Effect of fluoro-, iodo-, and cyano-substituents on formation of anilinobenzthiazole derivatives from *p*-monosubstituted thiocarbamides and bromine, A., 168. Tautomerism in the light of recent investigations, A., 370. Interaction of aromatic thiocarbamides with bromine, A., 816.  
See also Chowdhury, M. R., Farooq, M. O., and Hasan, C.
- Hunter, R. M., and Dow Chem. Co., curtain for electrolytic cells employing fused baths, (P.), B., 273.
- Heath, S. B., and Dow Chem. Co., magnesium, (P.), B., 433.
- Stewart, Leroy C., Houser, H. E., Free, L. D., and Dow Chem. Co., treatment of electrodes, (P.), B., 434.
- Ward, L. E., and Dow Chem. Co., treatment of [carbon] electrodes, (P.), B., 636.  
See also Ward, L. E.
- Hunter, T. G., principles of granulation, B., 128.  
and Nash, A. W., contact equipment for extraction and reaction in two-phase liquid systems, B., 943.
- Hunter, V. See Westra, J. J.
- Hunter, W. H., and Budrow, T. T., iodination of phenol under anhydrous conditions, A., 706.  
and Jackman, R. E., action of phosphorus pentachloride on indan-1:3-dione, A., 828.  
and Morse, M. L., oxidation of *s*-triiodophenol, A., 1157.  
and Yohe, R. V., polymerisation of unsaturated hydrocarbons; catalytic action of aluminium chloride, A., 485.
- Huntress, E. H., and Cliff, I. S., preparation of disubstituted fluorenones by the action of heat on the corresponding substituted diphenic acids or their derivatives, A., 826.
- Cliff, I. S., and Atkinson, E. R., occurrence of isomerism in the fluorenone-carboxylic acid series; isomeric products from the action of sulphuric acid on 3:3'-dichlorodiphenic acid, A., 1293.
- and Hershberg, E. B., automatic pressure-regulating unit for vacuum distillation, A., 480.  
See also Davis, T. L., and Hershberg, E. B.
- Huntsman, M. E. See Best, C. H.
- Huntzicker, H. N., and Kahlenberg, L., relation of hydrogen to nickel with special reference to catalytic power of the latter, A., 912.
- Hupe, R. See Szeszich, J. von.
- Huppke, W. F. See Frey, F. E.
- Huppmann, G. See Fischer, Ph., and Pummerer, R.
- Hurd, C. B., and Carver, D. H., silicic acid gels. III. Effect of addition of solutes on the time of set, A., 462.  
and Swanker, H. J., electrical conductivity of silicic acid gel mixtures during gelation, A., 779.
- Hurd, C. D., and Bollman, H. T., pyrolysis of  $\alpha$ -unsaturated hydrocarbons, A., 371.
- Christ, R., and Thomas, C. L., preparation and pyrolysis of dibenzyl ketone, phenylacetic anhydride, and diphenylacetic anhydride, A., 821.



- Hurd, C. D., and Currie, N. R., pentose reactions. III. Xylan, A., 596.
- Garrett, J. W., and Osborne, E. N., furan reactions. IV. Furoic acid from furfuraldehyde, A., 510.
- and Pilgrim, F. D., carbon suboxide, A., 376. Furan reactions. VI. [Attempted preparation of] cyclopropene, A., 510.
- and Raterink, H. R., pyrolysis of mandelic acid and related compounds, A., 607.
- Sweet, A. D., and Thomas, C. L., liquid keten and keten polymerides, A., 259.
- and Thomas, C. L., interaction of keten with aromatic aldehydes and its bearing on the Perkin reaction, A., 274.
- Furan reactions. V. Derivatives of furfuryl alcohol, A., 280. Action of bleaching-powder on ketones and ethyl acetoacetate, A., 595.
- See also Heisig, G. B.
- Hurd, C. J. See Price, F. E.
- Hurd, L. C., and Evans, R. W., determination of cadmium; Evrard method, A., 245.
- See also Geilmann, W.
- Hurd-Karrer, A. M. See Nelson, E. M.
- Hurley, T. F., pulverised fuel—the "grid" burner, B., 611.
- Hurrell, G. C., emulsifying, mixing, and disintegrating machines, (P.), B., 369.
- Hurst, I. A. See Brit. Thomson-Houston Co.
- Hurst, J. E., refined pig irons: their influence on production of high-duty iron castings, B., 308. Resistance to wear of nitrogen-hardened cast iron, B., 918. Permanent set in cast non-ferrous alloys and austenitic cast irons, B., 1059.
- Hurst, L. A., and McKaig, M., effect of fertiliser on composition of [cane] juice, B., 806.
- See also O'Neal, A. M.
- Hurt, A. S. See Hewitt, E. S.
- Hurt, R. H., zinc hydroxide as substitute for calcium hydroxide in arsenical sprays, B., 566.
- Huxthal, L. M., blood-cholesterol in thyroid disease. I. Toxic and non-toxic goitre. II. Effect of treatment, A., 304, 973.
- Husa, W. J., and Magid, L., effect of various compounds on stability of hydriodic acid, A., 575.
- Husby, M. See Isaachsen, H.
- Husemann, E. See Zintl, E.
- Huskey, O. B., ignition insulation composition, (P.), B., 880.
- Husted, C. See McQuarrie, I.
- Huston, R. C., and Chen, P. S., chloro-derivatives of *m*-cresol, A., 1287.
- Neeley, A., Fayerweather, B. L., D'Arcy, H. M., Maxfield, F. H., Ballard, M. M., and Lewis, W. C., bromo-derivatives of benzylphenols. I. Mono-, di-, and tri-bromo-derivatives of *o*- and *p*-benzylphenols, A., 708.
- and Peterson, W. J., mono- and di-bromo-derivatives of *m*-cresol. II., A., 1157.
- Sell, H. M., and Brigham, H. R., *p*-xylylmethylpyrazolones and [their] derivatives, A., 1059.
- and Strickler, H. W., action of aromatic alcohols on aromatic compounds in presence of aluminium chloride. VI. Condensation of phenylpropylcarbinol and  $\alpha$ -chlorobutylbenzene with phenol, A., 1287.
- Huszák, S., ascorbic acid content of corpora lutea, A., 1213.
- Hutcheson, W. W. See Mason, W. C.
- Hutchings, P. J. See Roscoe, R.
- Hutchinson, A. H., and Ashton, M. R., effect of radiant energy on diastase activity, A., 1330.
- Hutchinson, C. R. M. See Hall, H. C.
- Hutchison, A. G., metamorphism of the Deeside limestone, Aberdeenshire, A., 368.
- Hutchison, A. W. See Scholl, A. W.
- Hutchisson, E. See Muskat, M.
- Hutchman, J. E., and Carpenter & Co., Inc., L. E., coating composition [for artificial leather], (P.), B., 1019.
- Hutino, K., direction of growth of the needle-like crystals of glucose penta-acetate and cellobiose octa-acetate, A., 1108.
- See also Sakurada, I.
- Hutschreuter, R. See Langenbeck, W.
- Huttenbach, Lazarus & Sons, Ltd., rubber sheet from coagulated latex, (P.), B., 33.
- Huwer, G., spectrographic examination of urine in ultra-violet light, A., 1187.
- Huxford, W. S. See Cashman, R. J.
- Huybrechts, M., and Degard, C., solubility of lead chromate; application to volumetric determination of lead, A., 1111.
- Hvistendahl, B., oxidation of  $\beta$ -glucosan, A., 54. Zymophosphate and alcoholic fermentation, A., 750.
- Hyatt, J. B., and Turner, C. W. O., commercial ripening of bananas in New Zealand. II. Practical ripening on a small scale, B., 1073.
- Hybinette, N. V., and Nicalumin Co., heat treatment of strong aluminium alloys, (P.), B., 312.
- Hyde, A. F. See Simonds, F. M.
- Hyde, A. M. See Rue, J. D.
- Hyde, C. G., thermophilic digestion of municipal garbage and sewage sludge, B., 254.
- Hyde, E. H., and Amer. Tar Products Co., composition of matter; [disinfectant], (P.), B., 734.
- Hyde, F. F. See Hunter, L.
- Hydraulic Brake Co. See Tseng, A. T. K.
- Hydrol Chemical Co., Inc. See Haabestad, E. H.
- Hydro-Nitro Soc. Anon., hydrogen and carbon monoxide [mixtures from hydrocarbon gases], (P.), B., 534.
- Hykes, O. V., effect of heavy metals on ctenophores, A., 91.
- Hyland, M. C. See Blair, J. M.
- Hylleraas, E. A., wave-mechanical calculation of the Rydberg correction for helium terms, A., 879.
- Hyman, J., and Pure Oil Co., artificially coloured motor fuel, (P.), B., 821.
- Schlandt, A. F., and Pure Oil Co., treatment of petroleum emulsions, (P.), B., 420.
- Hynd, A., and Rotter, D. L., metabolism of animals on a carbohydrate-free diet. V. Effect of adrenaline on glycogen distribution in the rat, A., 642.
- Hynek, L. See Bílek, F.
- Hynson, Westcott & Dunning, Inc. See Dunning, F.
- Hypher, N. C., X-ray inspection of aluminium alloy welds, B., 970.
- Hyslop, C. G. T. See Phosphor Bronze Co.
- Hyslop, J. F., fluxing of silica; silica equilibrium diagrams, B., 106.
- See also Stein & Co., Ltd., J. G.

## I.

- \*I. G. Farbenind. A.-G., acenaphthalic [acenaphthene-5:6-dicarboxylic acid and 1:4:5:8-naphthalenetetracarboxylic acid] nuclear substitution products, (P.), B., 1048. Acetaldehyde from acetylene, (P.), B., 822.  $\beta$ -Acetoethyl alcohol [methyl  $\beta$ -hydroxyethyl ketone], (P.), B., 280. Purification of acetylene prepared by thermal or electrical methods, (P.), B., 216. Acetylene from gases containing hydrocarbons, (P.), B., 951. Acetylene chlorides, (P.), B., 954. Separation of weak acids from gaseous mixtures, (P.), B., 588. Stable acridine salt solutions, (P.), B., 939. Acylamino-compounds [of the anthraquinone series], (P.), B., 1048. Adenosinephosphoric acid, (P.), B., 845. Aliphatic halogenated alcohols, (P.), B., 182. [Aalkyl] alcohols, (P.), B., 999. [Unsaturated] alcohols [from unsaturated aldehydes or ketones], (P.), B., 999. Aldehyde-phenol condensation products, and application thereof as moth-proofing or similar agents, (P.), B., 140. Alkali-metal salts of adenylypyrophosphoric acids, (P.), B., 940. Anhydrous alkali polysulphides, (P.), B., 189. Mono-*N*-alkanol [-hydroxyalkyl] derivatives of aromatic di- and polyamines, (P.), B., 220. 2-Alkylamino-benzene-1-carboxylic acid-4-sulphonic [4-sulpho-*N*-alkylanthranilic] acids, (P.), B., 907. Amides of higher fatty acids, (P.), B., 182. Aromatic amines and coloured pigments, (P.), B., 823. Salts of aminoacridine compounds, (P.), B., 251. Aminoanthraquinonesulpho[nyl] chlorides, (P.), B., 908. 1-Amino-10-anthrones and 1-aminoanthraquinone compounds, (P.), B., 857.  $\alpha$ -Amino-carboxylic acids, iminodicarboxylic acids, and their salts, (P.), B., 856. 4-Amino-2:5-dialkoxylphenyls and azo-dyes [pigments and ice colours] therefrom, (P.), B., 582. *p*-Aminodiphenyl and derivatives thereof, (P.), B., 857. Chloro- and bromo-derivatives of 2-aminonaphthalene-1-sulphonic [Tobias] acid, (P.), B., 183. Improvement of animal hides and leather, (P.), B., 358. Anthraquinone derivatives, (P.), B., 183, 1001. Derivatives of the anthraquinone series [pyrimidanthrones], (P.), B., 261. Antimonates of alkali and alkaline-earth metals, (P.), B., 147. Reduction of aromatic hydroxy-compounds [to hydrocarbons], (P.), B., 955. Arsenic [organic] compounds, (P.), B., 412. Arylamino-1-hydroxynaphthalenecarboxylic [naphthoic] acids, (P.), B., 908. Arylamino-2-hydroxynaphthalenecarboxylic [naphthoic] acids, (P.), B., 140. Aryl-isothiazolones [benz- and naphtho-isothiazolones], (P.), B., 1000. Azo-dyes, (P.), B., 779. Azo-dyes [pigments and ice colours] and intermediate products therefor, (P.), B., 222, 958, 1001. Azo-dyes [green pigments and ice colours], (P.), B., 185. Azo-dye [red ice colour] and intermediate product

**\*I. G. Farbenind. A.-G.—continued.**

[base] therefor, (P.), B., 780. Azo-dyes containing copper, (P.), B., 12, 380. Azo-dyes [for wool], (P.), 1049. Azo-dyes [for wool, cotton, leather, acetate silk], (P.), B., 185. [Acid] azo-dyes, (P.), B., 909. [Direct] azo-dyes, (P.), B., 858, 909. [Green] azo-dyes insoluble in water on the fibre [ice colours], (P.), B., 141. Insoluble azo-dyes on the fibre, (P.), B., 1007. Water-insoluble azo-dyes on the fibre [ice colours], (P.), B., 961. Water-insoluble azo-dyes [pigments and ice colours], (P.), B., 583.

Barbituric derivatives, (P.), B., 93. Base-exchanging substances, (P.), B., 346. Beryllium alloys of heavy metals, (P.), B., 70, 153. Beryllium fluoride, (P.), B., 146. Bis(halogenohydroxyaryl) oxides, (P.), B., 856. Bismuth salts of arseno-compounds, (P.), B., 252. Bleaching of vegetable substances [straw, etc.], (P.), B., 462. Bleaching powder, (P.), B., 506, 865. 6-Bromo- [or -chloro-] 2:4-dinitroaniline, (P.), B., 1047. 6-Bromo- and 4:6-dibromo-2-hydroxynaphthalenes [6-bromo- and 4:6-dibromo-8-naphthols], (P.), B., 54. 6-Bromo-2-hydroxy-3-naphthoic acid, (P.), B., 101.

Calcium hydrogen phosphate, (P.), B., 346. Carbazole chloride, (P.), B., 856. Carbazole-2[3]-ketones [3-carbazolyl ketones], (P.), B., 856. Electric arc treatment of vaporised carbonaceous materials, (P.), B., 51. Thermal treatment with hydrogen of carbonaceous materials, (P.), B., 213. [Catalysts for] carrying out hydrogenation catalytic reactions, (P.), B., 465. Cellulose derivatives, (P.), B., 664. Treatment of films and foils of cellulose esters, (P.), B., 543. Dyeing of cellulose esters and others [in green shades], (P.), B., 783. Cement powders, (P.), B., 868. Obtaining chlorides of the cerium group free from thorium, (P.), B., 828. Chlorocresols, (P.), B., 101. Cleaning and polishing agents for metallic surfaces, (P.), B., 477. Coating or polishing compositions, (P.), B., 436. Cobalt nitrosocarbonyl and cobalt nitrosyl, (P.), B., 865. Improving sheets and films of colloids, (P.), B., 782. Coloured masses and solutions thereof, (P.), B., 479. Aqueous finishings and body colours, (P.), B., 1069. Condensation products [from polyhydric alcohols and cyclic ketones], (P.), B., 182. Condensation products, [(a) pyrimidones, (b) pyridones] of the anthraquinone series [wool dyes], (P.), B., 823. Condensation products from natural resins, (P.), B., 1021. Conversion products from natural resins and esters thereof, (P.), B., 1021. Copper complex compounds of polyazo-dyes, (P.), B., 697. Cyclic ammonium salts [wetting agents] containing an acylated hydroxyhydrocarbon residue, (P.), B., 458.

Dental models, (P.), B., 191. Detergents containing alkali silicates, (P.), B., 506. Stable salts of dialkylamino-arylphosphinous acids, (P.), B., 251. 2:2'-Diaminodiphenyl-4:4'-disulphonic acid, (P.), B., 54. Solid stable diazoazosalts, (P.), B., 1048. [2:7-Dihydroxy-

**\*I. G. Farbenind. A.-G.—continued.**

naphthalene-3:6]-dicarboxylic acid, (P.), B., 908. 3:5-Di-iodo-4-pyridone, (P.), B., 856. Disazo-dyes insoluble in water [for colouring rubber, etc.], (P.), B., 1049. Disinfectants, (P.), B., 574. Dressings [for fabrics] which are fast to washing, (P.), B., 265. [Solid] driers of improved stability and solubility, (P.), B., 879. Perfectly homogeneous solutions of drying agents, (P.), B., 78. Dye preparations [containing stable reduction products of thioindigoid vat dyes], (P.), B., 583. Dyes of the anthraquinone series, (P.), B., 184. Dyes containing sulphur, (P.), B., 1048. Acid dyes of the anthraquinone series, (P.), B., 184. Acid wool dyes of the anthraquinone series, (P.), B., 341, 779. Intermediates and dyes of the anthraquinone series, (P.), B., 540. Dyes for dyeing cellulose esters and others, (P.), B., 779. [Dis]azo-dyes [containing copper], (P.), B., 909. Condensation products [direct cotton dyes] of the anthraquinone series, (P.), B., 102. Stable reduction products of dyes of the indigo series, (P.), B., 909. Dyes containing nitrogen [pigments, acid and vat dyes], (P.), B., 262. [Acid] dyes of the triarylmethane series, (P.), B., 298. Readily soluble [salts of] basic dyes, (P.), B., 909. Water-insoluble dyes [pigments and ice colours], (P.), B., 779. Manufacture of dyes and intermediate products therefor, and of sensitised photographic emulsions, (P.), B., 909. Dyeing and printing, (P.), B., 783. Improved dyeings, (P.), B., 188.

Esters of the leuco-compounds of vat dyes, (P.), B., 583. Apparatus for carrying out exothermic hydrogenation reactions under pressure, (P.), B., 609.

Fertilisers containing ammonium nitrate which are stable when stored, (P.), B., 324. Solutions of fibroin, (P.), B., 698. Treatment of fibrous materials [textiles or leather], (P.), B., 622. Filter-presses, and a combined filter- and hydraulic press, (P.), B., 529. Fluorinated aromatic hydrocarbons, (P.), B., 857. Addition compounds of formyl halides [with aluminium halides], (P.), B., 777. Apparatus for gasification of fuels which tend to agglomerate, (P.), B., 774.

Gases containing hydrocarbons worked up in electric arcs, (P.), B., 377. Purification of gases derived from roasting processes, (P.), B., 1063.

Halogen derivatives of the anthraquinone series, (P.), B., 857. Halogen derivatives of the benzophenone and anthraquinone series, (P.), B., 857. Halogenation products of acenaphthindandione diketimines, (P.), B., 778. Halogenoaminoanthraquinonesulphonic acids [wool dyes], (P.), B., 909. Production of hydrocarbons of low b.p. by thermal decomposition of hydrocarbon oils, (P.), B., 340. Refining of hydrocarbons produced by destructive hydrogenation, (P.), B., 537. Liquid hydrocarbons of the benzene series, (P.), B., 458. Rendering liquid hydrocarbons fluorescent, (P.), B., 456. Hydrocarbon

**\*I. G. Farbenind. A.-G.—continued.**

products, (P.), B., 997. Pure hydrogen fluoride, (P.), B., 306. Dehydrogenation of hydrogenated heterocyclic compounds, (P.), B., 297. Destructive hydrogenation of distillable carbonaceous materials, (P.), B., 8. 1-Hydroxyanthracenecarboxylic acid, (P.), B., 141. *o*-[hydroxyazo-dyes [chrome dyes for wool], (P.), B., 958. Complex metallic compounds of *o*-hydroxyazo-dyes, (P.), B., 780. Hydroxybenzo- [naphtha-] quinolinecarboxylic acids, (P.), B., 140. *o*-Hydroxyindolecarboxylic acids of the benzene and naphthalene series, (P.), B., 220. Hydroxyketones, (P.), B., 101. 2-(3'-Hydroxy-2'-naphthyl)-4-hydroxy-6:7-benzo- $\psi$ -aziminobenzenes [4-hydroxy-*N*-(3-hydroxy-2-naphthyl)- $\alpha$ -naphthiminazoles] and azo-dyes therefrom [ice colours and pigments], (P.), B., 957. Optically active 1-hydroxyphenyl-2-aminopropanols-1 [8-amino- $\alpha$ -hydroxyphenylpropyl alcohols], (P.), B., 956. 3-[Hydroxyselenonaphthene and derivatives], (P.), B., 778.

Indigo halogenation product and its derivatives, (P.), B., 262. Indolesulphonic acids, (P.), B., 220. Indophenols of naphthacarbazolo series and dyes derived therefrom, (P.), B., 101. Isatins and indigoid dyes derived therefrom, (P.), B., 908.

Ketones, unsaturated, (P.), B., 696.

[Leather stuffing and reviving agents] manufacture and technical application of products from unsaturated fatty acids or their esters, (P.), B., 341. Multi-colour light filters for use with lenticular films, (P.), B., 365. Light-sensitive materials, (P.), B., 893. Apparatus for causing liquids to react with gases or vapours, (P.), B., 770. Dehydration of organic liquids and apparatus therefor, (P.), B., 822. Lubricating oils from fats or fatty oils, (P.), B., 675. Separation or purification of lubricating oils, (P.), B., 378. Luminous paints, moulded articles, coatings, or lacquers, (P.), B., 1069.

Magnesium alloys for production of castings in permanent moulds, (P.), B., 71. Magnetic materials, (P.), B., 73. Metal carbonyls, (P.), B., 669. Complex metal [organic] compounds, (P.), B., 251, 906. Conservation of technical and pharmaceutical preparations and other substances liable to attack by micro-organisms, (P.), B., 957. Decomposing monazite sand and similar ores bearing rare-earth metal compounds, (P.), B., 751.

Nickel carbonyl, (P.), B., 703. Nitriles, (P.), B., 457. Nitriles of resin acids, (P.), B., 479. Nitro-compounds of the diphenyl series, (P.), B., 662.

Oils and fats, apparatus for manufacture of neutral products, (P.), B., 156. Improving the taste and smell of fatty oils, (P.), B., 198. Improving the taste and smell of fish oils, (P.), B., 29. Oxidation of organic compounds, (P.), B., 260. Organic sulpho[nyl] chlorides, (P.), B., 183.

Paper sizing, (P.), B., 744. Finishing of pelts and skins, (P.), B., 881. Isolation of  $\alpha$ -phenylethylene  $\alpha\beta$ -dichloride, (P.), B., 54. Separation of phosphoric

## \*I. G. Farbenind. A.-G.—continued.

acid from mixed rare-earth sulphates obtained in decomposing monazite sands, (P.), B., 827. Photographic anti-halation layer, (P.), B., 813. Sensitising photographic bleaching-out layers, (P.), B., 365. Photographic emulsions, (P.), B., 124, 205, 605. Sensitising photographic emulsions, (P.), B., 285. Sensitisation of photographic silver halide emulsions, (P.), B., 893. Photographic filter layers or anti-halation layers, (P.), B., 333, 940. Anti-halation layer or filter layer for photographic plates and films, (P.), B., 93. Treatment of photographic films made from cellulose esters, (P.), B., 572. Envelope for light-sensitive photographic flat film, (P.), B., 173. [Photographic] flash light, (P.), B., 1037. Light-sensitive photographic material, (P.), B., 93. Anti-halation layers for photographic materials, (P.), B., 205. Photographic plates and films, (P.), B., 940. Anti-halation layers for photographic plates and films, (P.), B., 1085. Colour photography, (P.), B., 413, 492, 894. Three-colour photography, (P.), B., 814. Colour pictures, (P.), B., 285. [Pigments and wool] dyes [from benzoquinones], (P.), B., 298. Inorganic pigments, (P.), B., 199. Inorganic coloured pigments, (P.), B., 115. Agents for combating plant pests, (P.), B., 440. Plastic masses for dental impressions, (P.), B., 1069. Polyazodyes, (P.), B., 262. Manufacture of mixed polymerisation products [from vinyl compounds], (P.), B., 905. Moulded polymerisation products, (P.), B., 79. [Thermoplastic] polymerisation products from indene, styrene, vinyl esters, and similar monovinyl compounds, (P.), B., 79, 158. [Porcelain-like] artificial masses, (P.), B., 116. Potassium bicarbonate, (P.), B., 227. Protecting agents for acid and alkaline treatment of animal fibres, (P.), B., 827. Readily soluble derivatives of the pyridine series, (P.), B., 182. Water-soluble pyridine derivatives for use as contrast media in X-ray photography, (P.), B., 940. Removal of pyridine or other nitrogenous bases from phenols, (P.), B., 540. Pyridino-compounds [Skraup's quinoline synthesis], (P.), B., 856.

Quinaldines, (P.), B., 856. Quinoline-8-azo-compounds of the quinine series, (P.), B., 1085.

Reactions between molten substances and gases and apparatus therefor, (P.), B., 2. Reguline ferroboration, (P.), B., 712. Artificial resins, (P.), B., 1069. Oil-soluble synthetic resins, (P.), B., 800. [Resinous] condensation products, (P.), B., 157, 199. Rubber chlorination products, (P.), B., 481. Stabilised halogen derivatives [of rubber], (P.), B., 80. Conversion products of rubber, (P.), B., 33. Vulcanisation of natural rubber and artificial rubber-like masses, (P.), B., 723. Accelerators for vulcanisation of rubber, (P.), B., 802. Manufacture and application of accelerators for vulcanisation, (P.), B., 802.

Salts in globular shape, (P.), B., 624. Shaped articles from masses containing silicon, (P.), B., 71. Sheets or films from artificial polymerisation products,

## \*I. G. Farbenind. A.-G.—continued.

(P.), B., 677. Artificial silk [of high tensile strength and high extensibility], (P.), B., 143. [After-treatment] of artificial silk, (P.), B., 1052. Treatment of silk fibroin for making aqueous solutions, (P.), B., 102. Light-sensitive silver halide emulsions, (P.), B., 93, 173. Sensitising silver halide emulsions, (P.), B., 285, 413, 685. Derivatives of soap-forming carboxylic acids, (P.), B., 198. Sodium hydrosulphite preparations, (P.), B., 189. Improving capacity of sodium nitrate for being stored and scattered, (P.), B., 506. Softening agents [for plastic materials], (P.), B., 1069. Softening and gelatinising agents, (P.), B., 906. Styrene and homologues thereof, (P.), B., 140. Sulphonated nitrogenous derivatives of higher paraffin hydrocarbons [emulsifying agents], (P.), B., 182. Sulphonic acids of the anthraquinone [anthra-pyridone and -pyrimidone] series, (P.), B., 779. Sulphonic acids of piperidine or alkyl homologues of piperidine, (P.), B., 140. Purification of sulphur, (P.), B., 189. Sulphur dioxide, (P.), B., 105. Sulphuric acid esters of alcohols, (P.), B., 182. Sulphuric ester of leucoanthraquinone-1:2:2':1'-azine, (P.), B., 857.

Tetrazo-compounds [from *m*- or *p*-phenylenediamine], (P.), B., 956. Oiling textile fibres, (P.), B., 781. Sizing of textile fibres, (P.), B., 16, 1054. Assistants for textile and allied industries, (P.), B., 54, 379, 458, 540, 697. [Sizing and dressing] assistants for the textile and related industries, (P.), B., 261. Assistants [wetting, foaming, cleansing, and dispersing agents] for the textile and allied industries, (P.), B., 261, 823. Textile printing by means of vat dye preparations, (P.), B., 59. Therapeutic compounds of the heterocyclic series, (P.), B., 765. Therapeutically active complex metal compounds, (P.), B., 445. Thio-derivatives [from phenols; synthetic mordants and wool reserves], (P.), B., 778. [Thio]indigoid vat dyes, (P.), B., 12, 141, 184. Artificial threads [from resins], (P.), B., 301. Pure titanium dioxide, (P.), B., 386. Triaminodiphenylsulphonic acid and carbazole compounds therefrom, (P.), B., 54.

Unsaponifiable matter separated from oils, fats, waxes, mixtures containing fatty acids, and crude soaps, (P.), B., 878.

Vat dyes of the anthraquinone series, (P.), B., 12, 380, 458, 583, 1049. Vat dyes of the anthraquinoneacridone series, (P.), B., 1001, 1049. Vat dyes [of the anthraquinoneacridone and thioxanthone series], (P.), B., 184. Products [vat dyes] of the anthrapyrimidine series, (P.), B., 184. Vat dyes of the 1:2-benzanthraquinone series, (P.), B., 221. Vat dyes [from naphthalene-tetracarboxylic dianhydride and *o*-diamines], (P.), B., 741. Vat dyes of the pyranthrene series, (P.), B., 184. Yellow vat dyes [of the anthraquinone series], (P.), B., 262. Producing [vat dye] prints or discharges on wool, (P.), B., 863. Fast [vat] dyeings, (P.), B., 783. Vinyl esters, (P.), B., 904. Polyvinyl halides of high mol. wt., (P.), B., 182.

## \*I. G. Farbenind. A.-G.—continued.

Vinyl ketones, (P.), B., 582. Vinyl-substituted aromatic compounds [styrenes], (P.), B., 905.

Water-gas manufacture and apparatus therefor, (P.), B., 902. Improving properties of natural waxes, (P.), B., 398. Wetting agents for mercerising liquors, (P.), B., 783. Wetting, cleansing, and dispersing agents, (P.), B., 101, 139. Emulsion of wool fat, (P.), B., 76. and "Aceta" Ges.m.b.H., dyeing or colouring [liquid or fusible] organic materials, (P.), B., 462.

Andrussow, L., and Duerr, F., catalysts comprising phosphates, (P.), B., 703. Bernhard, E., and Hilcken, V., distillation of crude turpentine, (P.), B., 478. and Carpmal, A., vulcanisation products resembling rubber, (P.), B., 318. Products [derivatives of higher hydrocarbons] containing nitrogen, (P.), B., 998.

and Dierichs, A., catalysts [for manufacture of acetic anhydride], (P.), B., 540.

Fahr, R., and Keinke, R., apparatus for separation of finely-divided substances [from liquids], (P.), B., 449.

and Forbing, (Mrs.) F., stable barbituric acid compounds, (P.), B., 205.

and Gaus, W., apparatus for [continuously] treating solid and liquid materials, (P.), B., 369.

and Groves, W. W., acid wool dyes [of the anthraquinone series], (P.), B., 779. Racemic compounds of 1-hydroxyphenyl-2-aminopropanol-1 [ $\beta$ -amino- $\alpha$ -hydroxyphenylpropan- $\alpha$ -ol] series, (P.), B., 907.

and Hilcken, V., preparation of fatty acid esters of borneol and isoborneol, (P.), B., 999.

Jänecke, E., and Klippel, H., recovery of [water-soluble] sulphides, (P.), B., 464.

Lenz, W., and Jochum, K., acceleration of retting of flax, (P.), B., 1003.

Lommel, W., and Münzel, H., condensation products from [triaryl]phosphino oxides and phenolic compounds, (P.), B., 297.

and Mostny, H., artificial sponges and other porous structures, (P.), B., 586.

Otto, M., and Bub, L., volatile fluorides [e.g., boron fluoride], (P.), B., 548. and Ripke, O., decomposition product of urea as, or in, fertilisers, (P.), B., 567.

and Suida, H., isopropyl and homologous esters of aliphatic acids and isopropyl and homologous alcohols, (P.), B., 217.

Wietzel, G., and Haubach, F., phosphoric acid, (P.), B., 266.

and Wolff, H., green mineral pigment, (P.), B., 837.

Iball, J. See Owen, E. A.

Ibbotson, W. H., stocktaking on a chamber sulphuric acid plant, B., 144.

Ichihara, K., and Tamura, S., new paired glycuronic acid, tyrosinehydantoinglycuronic acid, A., 308.

Ichihara, M., phosphamidase, A., 1203.

Ichijo, K. See Nakamura, Kazumoto.

Ichniowski, C. T. See Thompson, Marvin R.

Ida, M. See Asabina, Y.

- Iddings, R. C., and Fyr-Fyter Co., fire-extinguisher charge, (P.), B., 658.
- Iddles, H. A., and Robbins, P. J., determination of furfuraldehyde produced from hardwoods, B., 222.
- Ide, W. S. See Buck, J. S.
- Iftimesco, G., Niehita, G., Popesco, I., and Tuschak, N., basal metabolism in different races of fowls, A., 1193.
- Igarasi, S., cause of coloration and refining of nigre [during soap-boiling], B., 274.
- Igran Electric Co., Ltd., and Giard, E. A., [control electrode of] electron-discharge tubes, (P.), B., 25.
- Ihle, K., and Stollenwerk, W., comparison of potash determinations in soils by seedling and *Aspergillus* methods, B., 162.
- Ihrig, H. K., aromatic hydrocarbons, (P.), B., 615.
- Iida, H. See Kameyama, N.
- Iida, T. See Wada, B.
- Iijima, H. See Yoshioka, Tosaku.
- Iimori, S., constitution of phosphorescence centres in fluorite, A., 554. Thermoluminescence spectrum of calcite, A., 661. Solarisation of luminiferous calcite, A., 999.
- Iimuro, S., and Murata, M., amount of so-called pituitary hormone in blood and urine in pregnancy, A., 322.
- Iinuma, T., and Mashino, M., properties of soya-bean protein. I. Influence of the preceding treatments [solvent extraction] on the solubilities of protein. II. Solubility in calcium thiocyanate solution. III. Shearing strength as adhesive. IV. [Use as binder] for water paint. V. Reactivities with formaldehyde. VI., B., 763, 844, 879, 1031.
- Ikebe, K. See Tsudji, M.
- Ikebe, T. See Tatsumi, Y.
- Ikedo, M., physico-chemical change of blood in gynaecological diseases. I. Uterine cancer. (a) Colloid stability of blood-plasma and serum-protein. (b) Cholesterol in blood-serum, A., 85.
- Ikehara, S. See Rosen, N.
- Ikeno, R. See Katô, Y.
- Iki, S., relation between caking power and weathering of coals. I. Oxidation of Chikuhô coals by air. II. Oxidation of Chikuhô coals by reagent, B., 450, 610.
- Ikonen, E. V. See Petrov, A. D.
- Ikuta, H., Japanese beeswax. II. Composition of free and combined fatty acids. III. Composition of "hydroxy-fatty acid," A., 1034; B., 797.
- Ilford, Ltd., and Hamer, (Miss) F. M., preparation of isocyanines containing  $\beta$ -naphthaquinoline nuclei, (P.), B., 262.
- See also Berry, W. A., and Kendall, J. D.
- Iliescu, E., microchemical detection of atropine, A., 81.
- Iliff, J. W., Lindsay, W. J., and Nat. Lead Co., white lead, (P.), B., 978.
- Ilijn, B. V., reversal of Traube's rule in adsorption, A., 774.
- Massillon, T., and Zaeharov, N., friction of disperse systems of different plasticity, A., 460.
- Oschmann, W. A., Rebenko, N. L., and Archangelskaja, N. K., physico-chemical analysis and molecular surface energy; heat of wetting and inversion of the composition-property diagram, A., 1010.
- Ilijn, S. S., by-products of leather industry as fertilisers for vegetables, B., 726.
- Ilijn, V. S., opening of stomata in severely wilted plants, A., 197.
- Ilijina, (Fr.) Z. See Bokinik, J. I.
- Ilijinski, M. A., and Zaikin, A. A., monobenzoyldiaminoanthraquinones, B., 421.
- Ilijuchin, V. K. See Kreschkov, A. P.
- Ilkovic, D., polarographic studies with dropping mercury cathode. XXVIII. Evolution of hydrogen from neutral and alkaline solutions, A., 131.
- Illari, G., determination of halogens in organic substances, A., 172. Behaviour of mercuric halides during anodic oxidation, A., 358. Pyrrole blacks obtained by reduction, A., 1310.
- Illarionov, V. V. See Kovalev, T. G., and Revva, F. K.
- Illing, E. T. See Wood, D. R.
- Illingworth, W. S. See Hammick, D. L.
- Imagawa, H. See Ishino, T.
- Imai, H., and Hagiya, M., nature of  $\beta$ -transformation of copper-tin alloys. II., A., 118.
- Imai, S. See Isobe, H.
- Imamura, H. See Fuseya, G.
- Imbarato, A., means for signalling the presence of an inflammable or non-inflammable noxious gas, (P.), B., 766.
- Imhoff, K., German practice in sewage disposal, B., 206. Treatment of sludge, sewage, etc., (P.), B., 814. Sewage purification, (P.), B., 942.
- Imhoff, W. G., galvanising furnace, (P.), B., 632.
- Imperial Bureau of Soil Science, dispersion of soils in mechanical analysis, B., 515.
- Imperial Chemical Industries, Ltd., [coating composition for] manufacture of leather cloth and similar coated fabrics, (P.), B., 479.
- and Baird, W., polyhydric alcohol-polybasic acid condensation products, (P.), B., 557.
- Baldwin, A. W., and Bunbury, H. M., detergent agents, (P.), B., 955.
- Baldwin, A. W., and Davidson, A., benzyl ethers, (P.), B., 822.
- Barlow, C. H., and Lawrie, L. G., dyeing, (P.), B., 961.
- Beckett, E. G., Shaw, C., Stephen, W. E., Semple, G. C., and Thomson, R. F., separation or purification of chlorinated derivatives of phthalic acids, (P.), B., 957.
- Bradley, William, and Robinson, R., substituted naphthalene derivatives, (P.), B., 101.
- and Broadhurst, H. M., treatment of caustic soda solutions for removal of sulphate therefrom, (P.), B., 1008.
- Brownson, H. W., Cook, M., and Miller, H. J., alloys containing copper and zinc, (P.), B., 1063.
- Bunbury, H. M., Davies, J. S. H., and Eccles, A., organic disulphides, (P.), B., 778.
- and Carter, C., alkali chlorates, (P.), B., 865.
- and Clapham, H. W., [low-density] blasting explosives, (P.), B., 1087.
- Clapham, J. E., and Hailwood, A. J., pigments, (P.), B., 1069.
- and Clarke, R. B. F. F., manufacture of composite bodies [using an adhesive containing rubber], (P.), B., 641.
- and Cousins, W. R., gas-producing compositions, (P.), B., 1009.
- and Coxon, T., purification of gases containing hydrogen sulphide, (P.), B., 820.
- Imperial Chemical Industries, Ltd., Crawford, J. W. C., and Fleming, J. S. B., splinterless glass, (P.), B., 549.
- and Davies, G. P., purification of trinitrotoluene, (P.), B., 140.
- and Denny, P. W., stabilisation of chlorinated hydrocarbons, (P.), B., 696.
- Dunbar, C., and Lawrie, L. G., reduction of lustre of cellulose derivatives [artificial silk], (P.), B., 623. Delustering of artificial silk, (P.), B., 784.
- Dunbar, C., and Todd, W., manufacture and use of wetting preparations, (P.), B., 225.
- and Evans, B. J. R., holders for use in electroplating; electrically depositing metals [nickel], (P.), B., 236.
- Fairweather, D. A. W., and Thomson, R. F., dyes and dyeing, (P.), B., 185.
- Anthracene derivatives, (P.), B., 221.
- and Fleming, J. S. B., fuels in paste or similar form, (P.), B., 773.
- Fleming, J. S. B., and Renfrew, A., laminated non-splintering glass, (P.), B., 965.
- and Goldstein, R. F., intermediate products and azo-dyes therefrom [ice colours], (P.), B., 183. Dyeing [with green ice colours], (P.), B., 225.
- and Greenhalgh, R., diphenylolpropane [*pp'*-dihydroxy- $\beta\beta$ -diphenylpropane], (P.), B., 777.
- Haddock, N. H., and Lodge, F., anthraquinone dyes and application thereof, (P.), B., 858.
- and Hailwood, A. J., cleansing and softening agents, (P.), B., 777.
- Hailwood, A. J., and Todd, W., emulsions, dispersions, etc., (P.), B., 777.
- and Hall, C. S., lids for pressure-resisting vessels in which fluids are stored or generated under pressure, (P.), B., 944.
- Hamilton, W. M., and Wilson, J. S., vat dyeing [with anthraquinone dyes], (P.), B., 384.
- Hetherington, A. C., and Sim, S. A., floor coverings, etc., (P.), B., 31.
- and Hill, R., manufacture of a new polymerisation product and of moulded products therefrom, (P.), B., 837.
- and Hinkel, L. E., aromatic aldehydes, (P.), B., 906.
- and Hodgson, H. H., treatment of dinitronaphthalene; [manufacture of 5-nitro- $\alpha$ -naphthylamine and 1:8-dinitronaphthalene], (P.), B., 778.
- Horrobin, S., and Stewart, Alexander, printing inks, (P.), B., 356.
- and Horsley, G. F., recovery of ethylene, (P.), B., 661.
- Jones, D. C. R., and Thomson, R. F., dyes and intermediates of the benzanthrone series, (P.), B., 184.
- Jones, M., and Naunton, W. J. S., vulcanisation of rubber, (P.), B., 881.
- and Kamm, E. D., hydrogenation of phenols, (P.), B., 856.
- and Knight, A. H., disazo-dyes [for cellulose esters and ethers] and their application, (P.), B., 780, 910.
- and Lawrie, L. G., [delustering] treatment of acyl, alkyl, or aralkyl cellulose derivatives, (P.), B., 667.
- and Lefebure, V., calcium sulphate plaster mixes and application of same, (P.), B., 191.
- Linch, F. W., and Piggott, H. A., manufacture of dyo intermediates and dyes [from 1:3:3-trialkyl-2-methyl-eneindoline], (P.), B., 741.

- Imperial Chemical Industries, Ltd., and Lodge, F., anthraquinone derivatives, (P.), B., 1048.
- Lodge, F., and Lumsden, C. H., [chrome wool] dyes of the anthraquinone series, (P.), B., 779. Mercapto-[thiol]-compounds of the anthraquinone series, (P.), B., 957. Anthracene and anthraquinone [thioindigoid] dyes, (P.), B., 958.
- and Lucas, S. H., light-producing ignitable compositions, (P.), B., 573.
- Macarthur, A., and Hailwood, A. J., [inhibitor for] acid pickling baths [for steel], (P.), B., 972.
- Macarthur, A., and Stewart, Alexander, agents for diminishing or suppressing foaming and frothing and application thereof, (P.), B., 54.
- and Mendoza, M., brown acid azo-dyes, (P.), B., 12. Disazo-[acid] dyes, (P.), B., 583.
- Mendoza, M., and Sexton, W. A., dyeing [with ice colours], (P.), B., 961.
- and Naunton, W. J. S., moulding of phenol-formaldehyde condensation products, (P.), B., 756.
- and Paine, C., tetrakisazo-dyes, (P.), B., 662. [Tris]azo-dyes, (P.), B., 958.
- and Palmer, K. W., arylmercaptocompounds [hydroxythiophenols], (P.), B., 54, 183.
- and Prince, A. J., [granular] fertilisers, (P.), B., 405.
- and Renfrew, A., thermoplastic resinous materials, (P.), B., 978.
- and Salisbury, E. H., nitrogen or hydrogen-nitrogen mixtures [from ammonia], (P.), B., 507.
- and Savage, J., cleaning or degreasing materials, (P.), B., 477. Apparatus for cleaning or degreasing materials, (P.), B., 556.
- Scholefield, F., Ermen, W. F. A., and Todd, W., wetting agents and treatment of textile fibres therewith, (P.), B., 1054.
- Sexton, W. A., and Ward, D., saponification of waxes and separation of alcohols therefrom, (P.), B., 1066.
- Shaw, C., and Thomson, R. F., dyes of the anthraquinone [dibenzanthrone] series, (P.), B., 184.
- Shaw, C., Semple, G. C., and Thomson, R. F., production of benzoylbenzoic acid and anthraquinone derivatives, B., 907.
- and Smith, F. E., carrying out chemical reactions in the liquid phase, (P.), B., 528.
- and Smith, William Hoscason, degreasing of materials [especially metal], (P.), B., 513.
- Somerset, H. B., and Holroyd, R., destructive hydrogen of carbonaceous materials, (P.), B., 613.
- Standen, A., and Ewan, T., manufacture of hydrocyanic acid gas, particularly for use as a fumigant, etc., (P.), B., 785.
- Thomson, R. F., and Lovelock, R. J., anthraquinone derivatives [2-chloro-1-aminoanthraquinone], (P.), B., 741.
- Thorpe, J. F., and Linstead, R. P., manufacture and use of colouring matters [pigments from phthalimide, etc.], (P.), B., 639.
- Tonkin, R., and Wilson, J. S., colour printing on textile materials, (P.), B., 225.
- Imperial Chemical Industries, Ltd., and Traill, D., plastic materials for production of insulated conductors, (P.), B., 1069.
- and Tyrer, D., burning of pyrites, or iron sulphide, and production of iron oxide, (P.), B., 461. Burning of pyrites, or iron sulphide, and production of iron oxide, sulphur, and sulphur dioxide, (P.), B., 506.
- and Watts, H. G., separation of ethylene from its homologues, (P.), B., 776.
- and Weale, A., priming compositions [for percussion caps], (P.), B., 733.
- and Wheeler, T. S., chlorinated derivatives of benzene, (P.), B., 421.
- and Williams, V. H., stabilisation of blasting explosives, (P.), B., 125.
- and Wyler, M., indophenols and sulphur dyes, (P.), B., 908.
- and Young, K. W., roasting of plumbiferous sulphide ores, (P.), B., 834.
- Imperial Institute, shea nuts from the Gold Coast, B., 75. Tung-seed and oil from Empire sources, B., 75. Absorption of water by sisal and manila ropes on immersion: increase of weight and girth, B., 222. Wattle bark [*A. mollissima* and *A. decurrens*] from South Africa, B., 240.
- Improved Fire Detector Corporation. See Brady, G. H.
- Improved Hydro-Carbon Processes, Ltd., refining of hydrocarbons, (P.), B., 340.
- Improved Textile Rollers, Ltd., and McGhee, H., mouldable rubber compositions, (P.), B., 481.
- Imre, L., interfacial phenomena in the formation of crystals with continuous or discontinuous distribution of microscopic components, A., 565. Interface equilibria and inner equilibria in heterogeneous systems. I. Exchange and charging processes on surfaces of heteropolar crystals. II. Theory of fractional crystallisation, A., 671. Kinetics of surface processes in crystal lattices. II. Elementary processes in formation of a boundary layer consisting of several components, A., 679.
- Imshenetski, A. A., sensitisation of yeasts to X-rays by dyes, A., 95. Action of hormones on yeasts, moulds, and bacteria, A., 868.
- In, K., effect of *Panax ginseng* on serum-calcium and -potassium. I. Rabbit's serum; effect of narcotics, A., 311. Relation between calcium-potassium equilibrium and antirheumatics. III. Influence of antirheumatics in rabbits with mustard-oil inflammation or experimental toothache, A., 740.
- Inaba, T. See Saito, H.
- Inagaki, G. See Ueno, Sei-ichi.
- Inagaki, S., intermediary metabolism of tryptophan. XVII. (b) Fate of amino-acetophenone in the animal body, A., 308.
- Inawashiro, T., influence of insulin on muscle-tissue respiration in polyneuritic pigeons, A., 1085.
- Indestructible Alloy Co., Inc. See Nicodem, F.
- Indian Refining Co. See Govers, F. X.
- Indovina, R. See Cannavò, L., Oddo, G., and Serio, F.
- Industrial Associates, Inc. See Riley, C. L.
- Industrial Dryer Corporation, conditioning of gases, (P.), B., 177.
- See also Harris, G. D.
- Industrial Patents Corporation. See McGilton, G.
- Infeld, L., and Waerden, B. L. van der, wave equation of electrons in the general relativity theory, A., 884.
- Ing, H. R., cytosine. II., A., 77. Alkaloids of *Anagallis foetida* and their relation to the lupin alkaloids, A., 727.
- Ingersoll, A. W., and Babcock, S. H., jun., preparation and optical resolution of ammonium *dl*- $\alpha$ -bromocamphor- $\pi$ -sulphonate, A., 279.
- Babcock, S. H., jun., and Burns, F. B., solubility relationships amongst optically isomeric salts. III. Mandelates and  $\alpha$ -bromocamphor- $\pi$ -sulphonates of  $\alpha$ -phenylethylamine and  $\alpha$ -*p*-tolylethylamine, A., 269.
- and Burns, F. B., solubility relationships amongst optically isomeric salts. II. Camphorates of  $\alpha$ -*p*-tolylethylamine, A., 154.
- Ingersoll, L. R., and Winch, W. R., dispersion of the Kerr electro-optic effect in the short infra-red spectrum, A., 1104.
- Ingham, J. W., and Morrison, J., dissociation constant of hypochlorous acid: glass-electrode potential determinations, A., 1118.
- Inglis, D. R., magnetic transition of hyperfine structure of mercury, A., 992.
- and Ginsburg, N., atomic energy levels and Zeeman effect, A., 332.
- See also Goudsmit, S.
- Inglis, N. P., and Andrews, W., effect on various steels of hydrogen at high pressures and temperatures, B., 919.
- Ingnot, J. See Kamiński, B.
- Ingmanson, J. H., Sehara, C. W., and Taylor, R. L., effect of accelerators and antioxidants on electrical characteristics and water absorption of vulcanised rubber insulation, B., 200.
- Ingold, C. K., significance of tautomerism and of reactions of aromatic compounds in the electronic theory of organic reactions, A., 1151.
- Jessop, J. A., Kuriyan, K. I., and Mandour, A. M. M., influence of poles and polar linkings on course pursued by elimination reactions. XVIII. Thermal decomposition of sulphonium hydroxides, A., 701.
- and Kidd, H. V., mechanism of aromatic rearrangements. II. Benzidine change, A., 1044.
- and Kuriyan, K. I., influence of poles and polar linkings on course pursued by elimination reactions. XX. Elimination of saturated primary alcohols by thermal decomposition of sulphonium hydroxides, A., 1040.
- and Patel, C. S., influence of poles and polar linkings on course pursued by elimination reactions. XI. Decomposition of quaternary ammonium hydroxides containing the *tert*-butyl carbonyl group. XII. Decomposition of quaternary ammonium alkoxides, A., 262.
- and Shah, L. D., modes of addition to conjugated unsaturated systems. V. Hydrogenation of ethyl muconate and of sorbic and  $\beta$ -vinylacrylic acids in presence of platinum, A., 935.
- See also Fenton, G. W., Hey, L., and Hughes, E. D.
- Ingraffia, F., reactions of magnesyl-2:4-dimethylpyrrole, A., 1303.
- See also Oddo, B.

- Ingraffia, G., oxidation of magnesyndoloxes by hydrogen peroxide, A., 721.
- Ingraham, M. A., and Fred, E. B., relation between bacteriostatic action of gentian-violet and the oxidation-reduction potential of the medium, A., 640.
- Ingraham, R. C., Lombard, C., and Visscher, M. B., characteristics of ultra-filtrates of plasma, A., 521.
- and Visscher, M. B., inverse concentration ratios for sodium and potassium in gastric juice and blood-plasma, A., 1068.
- Ingram, J. R., and Rubber Service Labs. Co., age-resisting vulcanised rubber products, (P.), B., 723, 1070. Antioxidant for vulcanised rubber products, (P.), B., 802, 931.
- Inkley, E. A., and Foundry Materials, Inc., [moulding-sand preparation, (P.), B., 674.
- Inman, O. L. See Rothmund, P.
- Innes, R. F. See Davies, C. W.
- Inoue, H., and Horiguchi, H., synthetic menthol. II. Synthesis of 2-nitro-p-cymene, and properties of its derivatives, A., 944.
- Inoue, S., biological investigation of iron metabolism, A., 304.
- Inoue, Y., and Sahashi, K., unsaturated fatty acids and their derivatives. VIII. Constitution of elupanodonic acid, A., 145.
- Inozemtzev, S. J., nature of potassium compounds in plants, A., 650. Physico-chemical analysis and problems of flocculation. I. Flocculation of grape-juice colloids, A., 777.
- Inshakov, N. V., chrome-nickel steels from Khalilovsk pig iron, B., 709.
- Insley, H., physical chemistry of the alumina-silica refractories. III. Minerals with the composition  $Al_2O_3 \cdot SiO_2$ , A., 229.
- See also Hall, F. P.
- Insolo Holding Co. See Skolnik, M.
- Institut de Platine, analysis of platinum minerals. I. Rapid analysis. II. Determination of certain noble metals. III. Determination of copper and iron. IV. Complete analysis. V. Analysis of "first insoluble residue" obtained on dissolving in aqua regia. VIII. Determining platinum, palladium, iridium, and rhodium in alloys of high platinum content, B., 232.
- Institute of Brewing, standard methods of analysis, B., 984.
- Institute of Petroleum Technologists, smoke point of kerosene, B., 1043.
- Institution of Gas Engineers, and Key, A., recovery of ammonia from coal gas and similar gases, (P.), B., 739.
- Insulite Co. See Ellis, G. H.
- Interessens Gemeinschaft der Farbenindustrie Akt.-Ges. See under I. G. Farbenind. A.-G.
- Intermetal Corporation, and Jenness, L. G., chlorinating sulphide ores [e.g., molybdenite], (P.), B., 386.
- See also Jenness, L. G.
- International Agricultural Corporation. See Ammen, J. G., and Bates, H. R.
- Internat. Bitumen Emulsions Corporation, [waterproof] paper, pasteboard, etc., (P.), B., 383.
- Internat. Bitumenoil Corporation, and Vandegrift, J. N., [carbonisation] retort construction, (P.), B., 294.
- Vandegrift, J. N., Linn, C. V., and Postel, C., apparatus for producing fuel from coking coal, etc., (P.), B., 294.
- Internat. Bitumenoil Corporation, Vandegrift, J. N., and Postel, C., fuel from coking coal, etc., (P.), B., 294.
- See also Vandegrift, J. N.
- Internat. Combustion, Ltd., and Crites, J., planetary ball mills, (P.), B., 255.
- and Wood, W. R., disposal of fly ash of furnaces, (P.), B., 207.
- Internat. Fibre Board, Ltd., sound insulation [for walls, etc.], (P.), B., 229.
- Internat. Fireproof Products Corporation. See Vivas, F. S.
- Internat. General Electric Co., Inc., and Allgem. Elektrizitäts Ges., utilisation of rubber waste, (P.), B., 33.
- Iron-nickel alloys, (P.), B., 68.
- Copper alloys capable of being age-hardened, (P.), B., 196.
- Electric insulating materials, (P.), B., 273, 875.
- Resinous condensation products, (P.), B., 277, 356.
- Insulating [dielectric] materials, (P.), B., 314.
- Photo-electric cells, (P.), B., 353.
- Cathode-ray tubes, (P.), B., 353.
- Artificial resins, (P.), B., 356.
- Moulded insulating masses for electrical purposes, (P.), B., 434.
- Methods of electrically insulating metals [iron], (P.), B., 591.
- Magnetic electrolytic iron, (P.), B., 793.
- [Aniline-formaldehyde] moulding substances, (P.), B., 837.
- Improving the properties of a ferromagnetic material [nickel-iron alloy], (P.), B., 873.
- Coated objects or coatings of artificial resin, (P.), B., 929.
- [Sprayed] rubber coverings, (P.), B., 979.
- Manufacture of moulded articles, particularly for electrical insulating purposes, (P.), B., 1069.
- Internat. Latex Processes, Ltd., and Joss, E. J., rubber thread, (P.), B., 930.
- Internat. Nickel Co., Inc., [age-hardening] alloys containing nickel, (P.), B., 794.
- See also Merica, P. D., and Pilling, N. B.
- Internat. Patents Development Co. See Bergquist, C., Berlin, H., Ebert, C., and Sovereign, C. L.
- Internat. Precipitation Co., mixing of non-homogeneous finely-divided solid materials, (P.), B., 3.
- See also Anderson, Evald, Clyne, C. B., Gies, J. R., Horne, G. H., Lissman, M. A., Oppen, E., Rüder, H. B., Seipp, F., and Viets, F. H.
- Internat. Silica Corporation. See McAadoo, T. O.
- Internat. Yeast Co., Ltd., and Bennett, W. G., yeast and other micro-organisms, (P.), B., 889.
- Kirby, G. W., and Frey, C. N., yeast, (P.), B., 487.
- Internationale Galalith-Ges. Hoff & Co., making proteinoplasts [with mother-of-pearl appearance], (P.), B., 437.
- Interstate Co-partnership Association. See Candlish, W. J.
- Inukai, F., and Nakahara, W., reactivation of the blood-forming action of liver by constituents of gastric mucosa, A., 540.
- Invention Ges. für Verwaltung & Vorwertung chemisch-technischer Patente G.m.b.H., esterification of organic acids with separation of the esters in highly concentrated form, (P.), B., 296.
- Investors Managing Trust, Ltd. See Williams, W.
- Ioan, H. See Garofeanu, M.
- Ioanid, G. See Mironescu, A.
- Ioanid, N. See Vintilescu, J.
- Ioannu, J. P., and Pennsylvania Salt Manufacturing Co., improvement of cereal products, (P.), B., 283.
- Ioffe. See under Joffe.
- Ionesco-Matiu, A., and Popesco, (Mme.) A., mercurimetric determination of cyanide and thiocyanate, A., 1023.
- and Popesco, C., identification and determination of methyl alcohol in presence of ethyl alcohol, A., 731.
- Ionescu, A., fine structure of absorption bands of sulphur dioxide in the ultra-violet, A., 660.
- Ionescu, C. N. See Nenitzescu, C. D.
- Ionescu, M. V., and Popesco, O. G., deoxybenzoin as a substance containing a reactive methylene group, A., 160.
- and Slusanschi, H., derivatives of di-indone. II. Action of alcoholic alkalis and alkali alkoxides on bisdi-indones. III. Action of di-indone on aldehydes in alcoholic [alkali], A., 162, 395.
- Ionescu, T. V., and Mihul, C., ionised gases in a magnetic field at pressures below  $10^{-3}$  mm. Hg., A., 8, 9.
- Dielectric constant and conductivity of ionised gases, A., 555.
- and Mihul, (Mme.) I., absorption of energy in ionised gases, A., 441.
- High-frequency discharge in gases, A., 548.
- Ionisation of air and hydrogen in high-frequency discharge, A., 760.
- Ionescu-Muscel, I. See Cercez, V.
- Ionic Alkaline Batteries, Ltd., and Berg, C. J., [folded perforated metal strip] electrodes of alkaline-type electric accumulators, (P.), B., 113.
- Tubular electrodes of alkaline-type electric accumulators, (P.), B., 475.
- Ionides, A. G., and Ionides, M. G., [domestic] emulsifying apparatus, (P.), B., 658.
- Ionides, M. G. See Ionides, A. G.
- Ionizing Corporation of America. See Henry, J. W.
- Ipatiev, V. N., hydrogenation of aromatic compounds at temperatures close to their decomposition [points] in presence of catalysts, A., 1152.
- Ipatiev, V. V., jun., and Tronev, V. G., absorption of hydrogen by palladium-black under high pressures, A., 773.
- Ipavic, H., special analytical methods; determination of (I) nickel, (II) small quantities of aluminium, in heat-resistant alloys, B., 1014.
- Sulphur-resistant alloys, B., 1014.
- Ipsen, V. L. See Gen. Electric Co.
- Irawashiro, T., changes in blood-sugar after intravenous administration of sugar in various pathological conditions, A., 1324.
- Iredale, T., absorption of halogen derivatives of methane in near ultra-violet, and their dissociation energies, A., 553.
- Iredell, C. V. See Westinghouse Lamp Co.
- Ireland, C. E., quantum mechanics of beryllium hydride, A., 444.
- Ireland, L. J., reclamation of crank-case or used oils, (P.), B., 100.
- Irlin, A. L., industrial catalytic preparation of aniline from nitrobenzene, B., 581.
- Irmisch, G. See Braun, J. von.
- Irrera, L., volumetric determination of chromium in chromates, A., 1025.
- Irrgang, K. See Bernhaner, K.
- Irvine, F. A. See Lathrop, E. C. and Munroe, T. B.



- Irvine, (Sir) J. C., and Montgomery, T. N., methylation and constitution of inulin, A., 700.
- Irving, F. See Davies, R. I., and Heilbron, I. M.
- Irving, H. See Chattaway, F. D.
- Irving, J. T., influence of iodoacetic acid on the blood-sugar level, A., 1076.
- Irving, L., post-mortal formation of acid in gastric mucosa, A., 299.
- and Chute, A. L., participation of carbonates of bone in neutralisation of ingested acid, A., 305.
- and Riggs, A. E. C., effect of acid on post-mortal lactic acid formation in mammalian muscle, A., 307.
- and Wilson, M. J., carbon dioxide content of gastric mucosa, A., 299.
- See also Chute, A. L.
- Irwin, D. A., supravital staining of intercellular cement substance, A., 299.
- Irwin, G. R. See Hockenyos, G. L.
- Irwin, J. T. See Ebright, H. E., and McIntyre, G. H.
- Irwin, W. H. See King, A. F.
- Isaac, W. E., rate of decay in relation to soil types and vegetative covering in Glamorgan, B., 321.
- Isaachsen, H., feeding trials with herring and cod meals for fattening pigs, B., 410. "Vitachalk" as a mineral supplement [for pigs], B., 1033. Composition, digestibility, and computed nutrient value of pasture herbage, aftermath, and grass at different stages of maturity up to late cutting for hay, B., 1033.
- Ulvesli, O., Husby, M., and Breirem, K., rôle of fat-soluble vitamin in nutrition of growing cattle and pigs, with consideration of other vitamin problems, A., 1212. Relative values of whole and separated milk fortified with tapioca or with plant oils and cod-liver oil, A., 1325.
- Isaacs, A., mercury for dental amalgams, B., 431.
- Isabolonskaja, R. See Leites, S.
- Isaceson, D. A. See Nenitzescu, C. D.
- Isaev, S., Egorov, A. G., and Grigoriev, A., removing gasoline from gas, B., 134.
- Isbell, H. S., calcium chloride modifications of mannose and gulose, A., 699.
- and Pigman, W., oxidation of  $\alpha$ - and  $\beta$ -glucose, and isomeric forms of the sugar in solution, A., 699.
- See also Bloomfield, J. J.
- Ischie, W. F., and Sinclair Refining Co., refining of hydrocarbons, (P.), B., 295.
- Iseki, T., 2:2'-di(furylmethyl) ether, A., 719. Synthesis of *dl*-hydroxymethyl-furylalanine, A., 719.
- and Kumon, T., embryo-chemistry of amphibia. III. Inorganic constituents during incubation of salamander eggs, A., 966.
- Kumon, T., Takahashi, J., and Yamasaki, F., embryo-chemistry of amphibia. IV. Nitrogenous substances during incubation of salamander eggs, A., 966.
- Iselin, E. See Viollier, R.
- Isemura, T., rhythmic precipitates. I. and II., A., 346, 568.
- Iserberg, H. O. C. See Gen. Chem. Co.
- Isgarischev, N. A., and Egorova, N. P., standardisation of chemical methods of testing metallic coatings, B., 110.
- Isgarischev, N. A., and Prede, A. F., electrolytic deposition of metallic niobium and its separation from tantalum, A., 681.
- Isham, P. D., and Fellers, C. R., effect of manufacturing and preserving processes on the vitamins of cranberries, B., 987.
- See also Fellers, C. R.
- Isham, R. M., and Doherty Res. Co., purification of alcohols, (P.), B., 296.
- Ishida, Y., and Suetsugu, T., X-ray study of density distribution in the discharge tube, A., 3.
- and Tamura, T., precision of the measurement of the Lo Surdo-Stark effect patterns, A., 992.
- Ishihara, T., and Nippon Shinyaku Kabushiki Kaisha, preparing a remedy for cancerous tumour, (P.), B., 412.
- Ishihara, Tominatsu, Mihara, K., and Umetu, K., polarisation potential of zinc deposited from aqueous solutions, A., 128.
- Ishii, N., cuprammonium solution. V. Formation of cuprammonium salt by the air-bubbling process. VI. Equilibrium composition. VII. Effect of sucrose on copper concentration, A., 1118; B., 864.
- Ishii, R. See Wada, I.
- Ishikawa, F., thermodynamic data for metallic sulphates. I., A., 784.
- and Hagiwara, H., velocity of decomposition of dithionic acid and its volumetric determination, A., 356. Ammonium sulphite. III. Equilibrium in the system  $\text{SO}_2\text{-NH}_3\text{-H}_2\text{O}$ , A., 897.
- Kimura, G., and Murooka, T., thermodynamic data on zinc chloride and cadmium chloride, A., 353.
- Masuda, K., and Hagiwara, H., thermal dissociation of sodium hydrogen sulphate, A., 27.
- and Murooka, T., volumetric and potentiometric determination of tri- and tetra-thionate by means of silver nitrate, A., 363. Thermodynamic data for metallic sulphates. II., A., 784. Ammonium sulphite. I. Solubility and transition point. II. Equilibrium in the system ammonium sulphite-ammonium sulphate-water. IV. Heat of solution of ammonium sulphite and hydrogen sulphite, A., 897.
- Murooka, T., and Hagiwara, H., velocity of reaction of potassium cyanide with thiosulphate or tetrathionate, A., 356. Fluorine. II. Reactions of fluorine oxide with water and with sodium hydroxide solutions, A., 1251.
- and Oku, M., dithionates. I. Sodium dithionate. II. Velocity of decomposition of sodium dithionate and potassium dithionate, A., 356.
- and Shibata, E., thermodynamic study of cadmium hydroxide, A., 353.
- and Terui, Y., thallous bromide, A., 1121.
- and Ueda, Y., thermodynamic studies of cadmium bromide, A., 905. Thermodynamic studies of mercurous bromide, A., 905.
- and Watanabe, Motoo, equilibrium in the reduction of silver chloride by hydrogen, A., 1246.
- and Yoshida, T., thermodynamic studies of zinc bromide, A., 353.
- Ishikawa, H., transformation of amorphous carbon into graphite, A., 38.
- See also Kobayashi, Kiuei, and Yamamoto, Kenichi.
- Ishikawa, Tetsuya, and Baba, Toshitomo, fish oil theory of origin of petroleum from a study of brine waters from widely different oilfields in Japan, A., 142.
- Ishikawa, Tokuzo. See Toyama, Y.
- Ishikawa, Tomoyoshi. See Hazard, W. G.
- Ishino, M., and Kojima, Kohei, K-absorption edges of nickel, copper, zinc, and their compounds, A., 108.
- Ishino, T., effect of internal resistance of galvanic cells on measurement of their e.m.f. by the capillary electrometer, and method of correction. I., A., 786.
- and Imagawa, H., effect of internal resistance of galvanic cells on measurement of their e.m.f. by the capillary electrometer, and method of correction. II., A., 1247.
- Ishiwara, M., esterification of cellulose and cellulose esters. V. Mechanism of nitration and properties of the product, B., 824.
- See also Atsuki, K.
- Ishiyama, T., enzymic degradation of diketopiperazine rings, A., 723.
- Ishizawa, M., nitriding of nitralloy, B., 430.
- Isida, K. See Izumi, S.
- Islamov, I. See Filippov, A.
- Isler, O. See Ruzicka, L.
- Isley, G. H., and Morgan Construction Co., regenerative heating furnace, (P.), B., 128.
- Isohe, H., and Imai, S., electro-osmosis. I. Electrokinetic potential difference at the interface in acid electrolytes of varying concentration, A., 1243.
- Isoda, I. See Kimura, S.
- Isom, E. W., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 100, 139, 539. Lubricating oil, (P.), B., 420.
- Isotti, G., degree of attenuation of beer is not dependent on yeast, but varies with composition of the wort, B., 648.
- Issagulianz, V. See Schorigin, P. P.
- Issoglio, G., diastatic power of malts by Pollak's method, B., 761.
- Italic, L. van, arsenic content of hair, A., 91. Arsenic content of [finger and toe] nails, A., 91.
- Italic, T. B. van. See Katz, J. R.
- Itano, A., aerial-earth circuit and biological activity. I. *Azotobacter chroococcum*. II., A., 638, 1207.
- and Arakawa, S., Vinogradsky's *Azotobacter* test applied to ricefield soils in Japan, B., 34. Microbiology of organic manures. I(b). Decomposition of rape cake by various stock cultures. II. Decomposition of soya-bean cakes by various stock cultures, B., 439, 483. Microbiological investigations of organic soils. I. Decomposition of rape cake, B., 679.
- and Matsuura, A., determination of chloride in soils, B., 241. Soil reaction and growth of *Astragalus sinicus*, B., 679.
- and Tsuji, Y., electrometric determination of magnesium by means of the antimony electrode, A., 1262.
- Itenberg, S. M. See Porai-Koschitz, A.
- Iterson, G. van, jun., biological introduction to the Cellulose Symposium [Delft, May 1932], A., 438. Simple arrangement to demonstrate liquid crystals, A., 1027.
- Ithara, M., impact torsion test. I., B., 1061.

- Ito, *M.*, koji diastase, A., 635.
- Ito, *T.*, possible form of  $\text{Si}_2\text{O}_5$  groups in silicates, A., 558.
- and West, *J.*, crystal structure of bertrandite, A., 13.
- See also Iwatsuru, *R.*
- Itoh, *S.* See Semba, *T.*
- Itchner, *V.* See Karrer, *P.*
- Itterbeek, *A. van*, low temperatures, and results of low-temperature research, B., 287.
- and Keesom, *W. H.*, determination of the specific heat, specific heat ratio, or the equation of state of a gas from the velocity of sound; velocity of sound in gaseous helium at the temperature of liquid hydrogen, A., 667.
- Itzkovitch, *R.* See Kritschewski, *I.*
- Ivančenko, *D.*, and Kasjanov, *V.*, economy of lime in [beet-juice] defecation, B., 567.
- See also Dédek, *J.*
- Ivančeva, *E. G.* See Pamflov, *A. V.*
- Ivanov, *D.*, alkaline decomposition of aliphatic  $\beta$ -hydroxy-acids. III. Disubstituted  $\beta$ -lactic acids, A., 807.
- and Abdoulov, *I.*, velocity of liberation of hydrocarbons by action of indene on aliphatic organo-magnesium compounds; method of measuring the attraction between alkyl radicals and the magnesyl group, A., 356.
- Mihova, (*Miss*) *M.*, and Christova, (*Miss*) *T.*, syntheses by means of magnesium derivatives of phenyl- and *o*-chlorophenyl-acetic acid and saturated and unsaturated ketones. II., A., 157.
- and Nicolov, *N. J.*, syntheses by means of magnesium derivatives of sodium phenylacetate. I. Preparation of aryl- $\beta$ -hydroxyaliphatic acids (substituted  $\beta$ -lactic acids). II. Preparation of mixed benzyl ketones and symmetrical trisubstituted  $\beta$ -hydroxyglutaric acids, A., 157. Thermal and alkaline decomposition of symmetrical trisubstituted  $\beta$ -hydroxyglutaric acids, A., 158.
- Ivanov, *I. Z.*, thermal polymerisation of gaseous olefines to liquid hydrocarbons, B., 612. Composition of cracking benzene, B., 691.
- Ivanov, *K. I.*, and Petin, *N. N.*, catalytic action of substances present in natural waters on oxidation of petroleum oils, B., 292.
- Ivanov, *L. L.*, mineralogy of Volhynian topaz deposits, A., 692.
- Ivanov, *M. F.* See Braun, *A. A.*
- Ivanov, *N.* See Korotaev, *A.*
- Ivanov, *N. F.* See Rakhlin, *E. A.*
- Ivanov, *N. N.*, variations in the composition of plants, A., 1342.
- Grigorjeva, *V. F.*, and Ermakov, *A. I.*, content of essential oil during maturation and germination, A., 329.
- and Lishkevitch, *M. I.*, catalase in barleys at different origins, A., 198.
- and Smirnova, *M. I.*, search for alkaloid-free lupins, A., 1092. Use of colour reaction in the search for alkaloid-free lupins, A., 1093.
- Ivanov, *S.*, and Klovov, *P.*, processes of fat formation in plants, A., 543.
- Ivanov, *U. S.*, degassing of tantalum, A., 1009.
- Ivanova, *A.* See Salkind, *J. S.*
- Ivanova, *E.*, and Rabinerson, *A.*, adsorption and solution volume. II. Dependence of ionic exchange on dilution, A., 671.
- See also Arbusov, *B. A.*
- Ivanova, *E. N.*, adsorption capacity of soils, B., 803.
- Ivanova, *K. A.* See Kazanski, *B. A.*
- Ivanova, *T. M.* See Oparin, *A.*
- Ivanova, *V.* See Jolson, *J.*
- Ivanova, *V. T.*, and Kurenova, *A.*, composition of cotton fibres of various stages of maturity, B., 185.
- See also Zakoshchikov, *A. P.*
- Ivanova-Zhikhareva, *A. F.*, microflora of carbonated juices preserved with an amount of lime equimolecular to the sucrose content, B., 87.
- Ivanovski, *V.*, and Turski, *J.*, trichlorophenols and their application in industry, B., 11.
- Ivanovsky, *N.*, action of hot glycerol on egg-white, A., 298.
- Ivanovsky, *L.*, solvents in chemical technical industry, B., 53. Ozokerite and paraffin: properties, structure, and behaviour towards volatile solvents, B., 613.
- Ivanys, *V.*, cracking of gas oil in liquid phase under atmospheric pressure in presence of catalysts, B., 612.
- Ivekovic, *H.*, use of copper and silver for the elimination of micro- and macro-organisms from swimming-bath water, B., 990.
- Iversen, *K.*, early and late application of cattle manure, 1898—1929, B., 565. Danish trials of autumn and spring manuring with cattle manure, B., 1074.
- Ives, *D. J. G.*, dissociation constant of acetic acid, A., 464. Dissociation constants of monobasic acids, A., 780.
- Linstead, *R. P.*, and Riley, *H. L.*, olefinic acids. VIII. Dissociation constants, A., 780.
- Ives, *E. L.*, and Brassert & Co., *H. A.*, malleable iron, (P.), B., 310.
- Ives, *H. E.*, and Fry, *T. C.*, standing light waves; repetition of an experiment by Wiener, using a photo-electric probe surface, A., 441.
- Ivy, *A. C.* See Farmer, *C. J.*, and Rony, *H. R.*
- Iwai, *M.* See Ueno, *Sei-ichi*.
- Iwakura, *N.*, Ōtani, *S.*, and Taniguchi, *T.*, intermediary metabolism of tryptophan. XVI. Influence of kynurenine on nutrition and experimental anæmia, A., 308.
- Iwamoto, *M.* See Izumi, *S.*
- Iwamura, *A.*, quantitative spectrum analysis. V. Determination of rubidium in artificial carnallite. VI. Attempt to determine the gold in natural ores. VII. Determination of the gold: silver ratio in mixtures. VIII. Determination of each salt in a mixture of two salts with the same anion or of two oxides in a mixture, A., 244.
- Iwanaga, *Y.*, influence of narcotics on the sugar-excretion threshold, A., 420.
- Iwanenko, *D.*, recalculation of mass defects, A., 110.
- Iwanik, *H.* See Smolenski, *K.*
- Iwasa, *Y.* See Shimizu, *M.*
- Iwasaki, *H.* See Yamamoto, *Kenichi*.
- Iwasaki, *S.*, Kita, *G.*, and Sakano, *T.*, viscose. XLVII. Effect of time and temperature on the ageing of alkali-cellulose, B., 1002.
- Iwasaki, *S.*, and Sugino, *E.*, viscose. XXXVI. The spinnometer and its use. IV., B., 263.
- Iwase, *E.*, bands in the thermoluminescence spectrum of fluorite from Obira, Japan, A., 887.
- Iwasé, *K.*, and Fukusima, *M.*, magnetic sands. IV. Catalytic reduction of magnetic sand and other metallic oxides, B., 832.
- and Nasu, *N.*, X-ray study on electrolytic nickel-iron alloys, A., 895.
- Iwata, *H.*, nutritive value of pentosan. III. Glycogen accumulation in the body of rats on xylan feeding. IV. Methods of treatment and kinds of animal for digestibility of pentosan, A., 630.
- Iwata, *T.* See Yoshimura, *K.*
- Iwatsuru, *R.*, Nakai, *Y.*, Ito, *T.*, and Kobayashi, *K.*, manometric determination of residual and total nitrogen, A., 174.
- See also Kozawa, *S.*
- Iyengar, *A. V. V.*, spike disease of sandal, B., 245.
- See also Rangaswami, *S.*
- Iyengar, *M. S.*, and Jois, *H. S.*, substitution in resorcinol derivatives; bromo-derivatives of resorcinol methylethers, A., 1158.
- Iyengar, *N. K.* See Sreenivasaya, *M.*
- Iyer, *C. R. H.*, and Sastri, *B. N.*, mucilage of fenugreek (*Trigonella fenum-græcum*), A., 1343.
- Iyer, *K. R. N.* See Waksman, *S. A.*
- Izakson, *I. N.*, influence of neutralisation, mordant, and fixative on colour and uniformity of dyes chrome-tanned leather, B., 319.
- Izard, *E. F.* See Du Pont de Nemours & Co., *E. I.*
- Izawa, *S.*, luminescence by cathode rays. I. Chromium and other elements as activators for aluminium oxide, A., 446.
- Izotova, *A. S.* See Tarasov, *G. J.*
- Izsak, *A.* See Du Pont de Nemours & Co., *E. I.*
- Izumi, *S.*, Isida, *K.*, and Iwamoto, *M.*, mechanism of the formation of phyto-bezoars (persimmon ball), A., 740.
- Yoshimaru, *Y.*, and Hidaka, *T.*, vitamin-D. IV. Ergosterol in soya-bean oil, A., 1088.
- Izzo, *A.*, pentrite [pentaerythritol tetranitrate] and  $\text{T}_4$  [trimethylenetrinitroamine], B., 365.

J.

- Jaaback, *G.* See Damodaran, *M.*
- Jabbes, *B. T. T.*, magnetic properties of some compounds of molybdenum, tungsten, and chromium in various states of valency of these elements, A., 11.
- Jabelberg, *G. I.*, and Tschegis, *A. F.*, cyclic process for preparation of  $\beta$ -naphthol, B., 421.
- Jablezyński, *K.*, van der Waals' equation. I. and II., A., 117, 453.
- and Bałczewski, *A.*, equilibrium law for strong electrolytes; alkali metal bromides and iodides, A., 227.
- and Wojciechowska, *J.*, equilibrium law of electrolytes, A., 569.
- Jabłoński, *A.*, efficiency of anti-Stokes fluorescence in dyes, A., 662. Heat of dissociation of the cadmium molecule from thermo-optical observations, A., 1095.

- Jablonski, A., Fringsheim, P., and Rompe, R., band and line fluorescence in sodium vapour excited by absorption, A., 547.
- Jablonski, L., loss due to material washed out of vegetable-tanned leather [by water], B., 678. Determination of acid in vegetable-tanned leather; report of [I.V.L.I.C.] Commission on leather analysis, B., 980.
- and Spiers, C. H., physical properties of leather; report of a joint Committee of the Society of Leather Trades' Chemists and I.V.L.I.C., B., 802.
- Jaccard, P., variations in nightly production of carbon dioxide in higher plants, A., 1091.
- Jackman, R. B., and Hayward, C. R., forms of copper found in reverberatory slags, B., 921.
- Jackman, R. B. See Hunter, W. H.
- Jackson, A., use of white-water in fine paper mills, B., 102.
- Jackson, Archie, and Kenyon & Sons, Ltd., W., heat-resisting composition, (P.), B., 415.
- Jackson, D. A., nuclear moment of indium, A., 200. Hyperfine structure of the lines of the arc spectrum of rubidium, A., 439. Structure of the lines of the arc spectrum of silver, A., 656. Magnetic nuclear moment of rubidium isotopes, A., 1221.
- Jackson, D. H., facilitating higher vacua in industrial processes, B., 1.
- Jackson, D. T., and King, C. G., synthetic glycerides. IV. Esters of aromatic and aliphatic acids, A., 374.
- Jackson, E. H. See Brit. Thomson-Houston Co.
- Jackson, E. W. See Kobe, K. A.
- Jackson, H. M. See Fixen, M. A. B.
- Jackson, J. F. B. See O'Neill, H.
- Jackson, J. G. See Jackson & Crockatt, Ltd., J. G.
- Jackson, J. M. See Harkins, W. D.
- Jackson, K. E. See Dehn, W. M.
- Jackson, L. C., principal magnetic susceptibilities of some paramagnetic crystals at low temperatures, A., 766.
- Jackson, L. M., means for separating fluids of different sp. gr., (P.), B., 816.
- Jackson, L. W. R., effects of  $pH$  and aluminium-ion concentration on conifer damping-off, B., 565. Effect of sulphuric acid and aluminium sulphate on soil  $pH$ , when used for control of damping-off of conifers, B., 565.
- Jackson, R. See Taylor, W. H.
- Jackson, R. F., Mathews, J. A., and Chase, W. D., determination of levulose [fructose] in crude products, B., 121.
- Jackson, R. W., and Block, R. J., metabolism of cystine and methionine; availability of methionine in supplementing a diet deficient in cystine, A., 89. Metabolism of *D*- and *L*-methionine, A., 975.
- Jackson, W. S., and Ajax Electrothermic Corp., electric induction furnace, (P.), B., 594.
- Jackson, W. W., and West, J., crystal structure of muscovite, A., 451. See also Taylor, W. H.
- Jackson & Crockatt, Ltd., J. G., and Jackson, J. G., apparatus for granulating friable substances, (P.), B., 335.
- Jacob, A., supply of bases in cultivated soils, B., 34. Application of the Neubauer test to examination of tropical soils, B., 981. See also Braun, J. von.
- Jacob, G., modern chips in practice, B., 984.
- Jacob, H. See Steinkopf, W.
- Jacob, K. D., Hill, W. L., Marshall, H. L., and Reynolds, D. S., composition and distribution of phosphate rock with special reference to the United States, B., 760. See also Hill, W. L.
- Jacobi, H. See Butenandt, A.
- Jacobi, K. R., one-sided substitution in piperazine; substituting agents which eliminate hydrogen halide, A., 284. See also Hesse, E.
- Jacobi Akt.-Ges., A., soap compositions, (P.), B., 28.
- Jacobowitz, M. See Zocher, H.
- Jacobs, F., antioxidants [for rubber], B., 1069.
- Jacobs, J., serological studies on iodinated sera. I. Precipitins and precipitinogens. II. Anaphylaxis, A., 735.
- Jacobs, L., and Whalley, H. K., phase boundary potentials of adsorbed films on metals. II. Iodine on platinum, A., 775.
- Jacobs, M. H., simultaneous measurement of cell permeability to water and to dissolved substances, A., 858. Relation between cell volume and penetration of a solute from an isosmotic solution, A., 989. See also Stewart, D. R.
- Jacobs, M. L. See Burlage, H. M.
- Jacobs, W. A., and Bigelow, N. M., strophanthins of *Strophanthus cuneatus*, A., 278. Ouabain. II. Degradation of isouabain, A., 829. Trihydroperiplogenin, A., 1038. and Elderfield, R. C., digitalis glucosides. VI. Oxidation of anhydrosidhydro-digitoxinigenin; problem of gitoxigenin. VII. Isomeric dihydrogitoxigenins, A., 379, 700. Strophanthin. XXVIII. Further degradation of strophanthidin and periplogenin derivatives, A., 1165.
- Jacobsen, A. E., and Luminous Tube Lighting Corp., spectral [white light] discharge tube, (P.), B., 72.
- Jacobsen, E., decomposition of adenylpyrophosphate *in vitro*, A., 316. Blood-phosphate fractions in experimental rickets, A., 973. Stability and separation of phosphatases, A., 980.
- Jacobsen, J. C., and Madsen, C. B.,  $\alpha$ -ionisation in pressure chambers, A., 659.
- Jacobsohn, K. P., and Da Cruz, A., biological hydrogenation of fumaric acid under influence of cereals, A., 313. Enzymic activity of fumarase preparations, A., 862. and Pereira, F. B., specificity of phosphatase; enzymic fission of a heterocyclic phosphoric ester by animal phosphatase, A., 188. Specificity of hydratases; action of peas and yeast on crotonic acid, A., 1201.
- Jacobson, B., and Westgren, A. F., nickel carbide and its relation to other carbides of elements from scandium to nickel, A., 558.
- Jacobson, D. L., and Koppers Co., gas purification, (P.), B., 181. Acetification of alkaline sulphide solutions, (P.), B., 266. Nitrates and other products, (P.), B., 385. See also Koppers Co. of Delaware.
- Jacobson, H. G. M., and Swanback, T. R., relative influence of nitrate and ammoniacal nitrogen on intake of calcium by tobacco plants, B., 645. See also Swanback, T. R.
- Jacobson, R. A., and Carothers, W. H., acetylene polymerides and their derivatives. VIII.  $\alpha$ -Alkyl- $\beta$ -vinylacetylenes. IX. New synthetic rubbers. IV.  $\beta$ -Chloro- $\alpha$ -alkyl- $\Delta^2$ -butadienes and their polymerides, A., 590. See also Carothers, W. H.
- Jacobus, D. S., and Babcock & Wilcox Co., apparatus for preheating oil from oil-cracking stills, (P.), B., 100.
- Jacobus, G. See Brückner, H.
- Jacoby, A. H. See Chapin, E. S.
- Jacoby, K. See Petrikaln, A.
- Jacoby, M., action of metals on enzymes. I. and II., A., 535, 865. and Friedel, H., calcium: magnesium ratio of blood-serum in oxalic acid poisoning, A., 746.
- Jacobs, G. T., Krieg, J. L., and Alco Products, Inc., heat exchanger, (P.), B., 255.
- Jacqué, L., effect of hydrogen on steel, B., 65.
- Jacquemain, R., preparation of mesityl oxide by Bodroux and Taboury's method, A., 937. Apparatus for sublimation of iodine, A., 1027.
- Jacques, W. A., manuring of meadow-hay land; effect of manures and lime on botanical composition and yield of hay, B., 322.
- Jaquet, P., adsorption of colloids by metallic surfaces and its effect on the adherence of electrolytic deposits, A., 458. Protective properties of colloids and their behaviour in electrolytic deposition of metals, B., 67. Strains in electrolytic copper deposited in presence of colloids, B., 109.
- Jacobovitsch, A. I. See under Jakubovitsch, A. J.
- Jadhav, G. V., condensation of ethyl propylacetoacetate with aromatic amines. II., A., 1155.
- Jaekel, G., and Sendlinger Optische Glaswerke G.m.b.H., colourless glass, (P.), B., 428.
- Jäger, A. See Kohorn, O. von.
- Jaeger, A. O., Bertsch, J. A., and Selden Co., zeolite product, (P.), B., 60. Resin [from coal-tar or coal-gas condensates], (P.), B., 157. and Selden Co., oxidation of polynuclear aromatic hydrocarbons, acenaphthene, and acenaphthylene, (P.) B., 54. Purification of anthraquinone, (P.), B., 54. Purification of by-product ammonia, (P.), B., 60. Regeneration of [vanadium] catalysts [used in the oxidation of naphthalene derivatives], (P.), B., 61. Reduction products of carbon monoxide, (P.), B., 216. Reduction of unsaturated [maleic and fumaric] acid compounds, (P.), B., 296. [Phthalide] synthetic resins, (P.), B., 479. Catalytic process and apparatus [for vapour-phase organic catalysis], (P.), B., 528. [Vanadium catalyst for] contact sulphuric acid process, (P.), B., 702. Catalytic molecular association of organic compounds, (P.), B., 905. Catalytic molecular association [polymerisation] of aldehydes, (P.), B., 954. Purification of crude dicarboxylic acids, (P.), B., 998. and Selden Research & Eng. Corp., purification of phthalide, (P.), B., 1047. West, H. J., and Selden Co., purification of keto [aroylbenzoic] acids, (P.), B., 297.

- Jaeger, A. O., West, H. J., and Selden Research & Eng. Corp., "silver salt" [sodium anthraquinone-2-sulphonate], (P.), B., 957.
- See also Daniels, L. C.
- Jaeger, F. M., and Beintema, J., structure of tetra- and tri-phosphonitrilic chloride, A., 116. Crystal structure of caesium, thallium, and rubidium perchlorates, A., 892.
- and Bottema, J. A., exact measurements of specific heats of solid substances at high temperatures. IV. Neumann-Joules-Kopp-Regnault law concerning additivity of atomic heats of elements in chemical compounds, A., 343.
- and Rosenbohm, E., exact measurement of specific heats of solid substances at high temperatures. XI. Remarkable behaviour of beryllium after preliminary heating above  $420^{\circ}$ , A., 16.
- Rosenbohm, E., and Bottema, J. A., exact measurements of specific heats of solid substances at high temperatures. III. Systematic study of sources of experimental error occurring in the use of a metallic calorimeter and in the measurement of specific heats of previously-worked metals. VI. Metals in stabilised and non-stabilised condition: platinum and silver. VII. Metals in stabilised and non-stabilised condition: copper and gold, A., 15, 247.
- Rosenbohm, E., and Veenstra, W. A., exact measurements of specific heats of solid substances at high temperatures. XI. Variability of specific heats of fused and solidified silver, A., 667.
- and Zanstra, J. E., structure of potassium osmiatate, A., 13. Structure of ammonium, rubidium, and thallium osmiatates, A., 13. Structure of cerium osmiatate, A., 13. Allotropism of beryllium, A., 1109.
- See also Bottema, J. A.
- Jaeger, Hans. See Stäblein, F.
- Jäger, Hermann, [method for] neutralising naphthol AS developing baths, B., 826.
- Jänecke, E., now equilibria at room temperature with three or four liquids together, A., 19. Fusion under pressure. II., A., 117. System methyl alcohol-isobutyl alcohol-water, A., 770. System  $\text{BiCl}_3\text{-ZnCl}_2$ , A., 906. Separation in the system  $\text{KOH-NH}_3\text{-H}_2\text{O}$  and ternary systems of the type ether-water-X, A., 1013.
- and Hoffmann, Alb., systems  $\text{CS}(\text{NH}_2)_2\text{-NH}_3\text{-H}_2\text{O}$ , A., 28.
- See also I. G. Farbenind.
- Jafet, A. B., laboratory preparation of chloride of lime, A., 793. New type of "chloride of lime," B., 587.
- Jaffe, E., use of tri(hydroxyethyl)amine for detecting traces of gold and silver and as a characteristic reagent for manganese, nickel, and cobalt, A., 246. Solubility of fats in ethylene glycol monoethyl ether, either alone or mixed with vaseline oil, B., 155.
- Jaffé, G., theory of conductivity of polarisable media, A., 338.
- Jaffe, H. L., Bodansky, A., and Chandler, J. P., ammonium chloride decalcification as modified by calcium intake; relation between generalised osteoporosis and otitis fibrosa, A., 416.
- Jaffery, S. T. H. See Farooq, M. O.
- Jagielski, A., dielectric constant of liquid iodine, A., 765.
- Jahn, A. R., concentration of liquors in multiple effect, (P.), B., 817.
- Jahn, D., influence of experimental mitral insufficiency on metabolism, A., 1323.
- Jahn, E. C., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XLV. Polymerisation, under influence of heat, of compounds containing the ethylene oxide ring, A., 606.
- See also Hepher, W. S.
- Jahn, F. K., Bloos, V., and Hayemal, P. C. L., working up film waste, celluloid, and other products containing nitro-cellulose, (P.), B., 224.
- Jahn, G. See Bunte, K.
- Jahn, H., analysis of sulphonates of aliphatic alcohols, B., 581.
- Jahn, L. See Wilhelm, H.
- Jahn, R. See Kangro, W.
- Jahnel, F., Page, I. H., and Müller, Eugen, storage of an antisyphilitic drug (tellurium) in the brain substance, A., 861.
- Jahr, E. G., pharmacology of inorganic thiocyanates, A., 423.
- Jahr, H., [detection of alcohol additions to] grape must, B., 889.
- Jahr, K. F. See Jander, G.
- Jahr, M. R. See Keller, P.
- Jahre, R., electrolytic cells [condensers], (P.), B., 973.
- Jahre, Spezialfabrik für Kondensatoren, R. See under Jahre, R.
- Jaitsechnikov. See under Yaitsechnikov.
- Jakeman, C., determination of life of lanoline rust-preventing coatings on steel, B., 150.
- Jakob, A. See Eckstein, O.
- Jakob, J., and Parga-Pondal, I., titaniferous mica in phlogopite, A., 140.
- Jakob, M., condensation and evaporation, B., 767.
- and Fritz, W., evaporation, B., 47.
- Jakób, W. F., and Jezowska, B., electro-reduction of perchloric acid, A., 358. Electrochemical reduction of acid perchlorate solutions; complex chloride of quinquivalent rhenium, A., 1254.
- Jakobson, B. M., and Reinwein, H., action of insulin and adrenaline on the excretion of sulphur and nitrogen, A., 538.
- Jakosky. See under Jakowsky.
- Jakovlev, R. S., completion of combustion in gas analysis, B., 690.
- See also Golouschin, N. S.
- Jakovleva, A. See Kondratiev, V.
- Jakowsky, J. J., and Electroblacks, Inc., apparatus for producing carbon black, (P.), B., 456.
- Jakubovitseh, A. J., negatively substituted alkylarsinic acids. I. Attempted preparation of dichloronitromethylarsinic acids, A., 1281.
- See also Scherlin, S. M.
- Jakubovitseh, S., and Goldberg, M., influence of moisture content on oil absorption of pigments, B., 238, 755. Effect of acidity in the oil-absorption capacity of a pigment, B., 1068.
- See also Zilberman, G.
- Jakubowicz, (Mlle.) B. See Vavon, G.
- Jakubowicz, W., evaluation of kerosene, B., 995.
- Jaleski, T. C. See Underhill, F. P.
- Jali, P. V., pulverising machine, (P.), B., 769.
- Jambhekar, M. R. See Hirwe, N. W.
- James, J. H., and Byrnes, C. P., manufacture of intermediate oxidation products and apparatus therefor, (P.), B., 216. Soap product, (P.), B., 798.
- James, J. H., and Byrnes, C. P., treatment of complex liquid partial-oxidation products and articles produced thereby, (P.), B., 904. Treatment of partial oxidation products [of mineral oils], (P.), B., 905.
- James, L. H., magnesium ammonium phosphate in canned salmon, B., 443.
- See also Hall, H. H.
- James, R. G., coagulation of [rubber] latex and latex mixings for industrial purposes, B., 800.
- See also Dunlop Rubber Co.
- James, R. W., influence of temperature on the scattering of X-rays by gas molecules, A., 12.
- James, W. O., and Penston, N. J., physiological importance of mineral elements in plants. IV. Distribution of potassium in the potato plant, A., 649.
- Jamet, A., direct use of hido powder for detanninisation [in tannin analysis], B., 931.
- Jamieson, A. B. See Cohen, W. E.
- Jamieson, G. S., Baughman, W. F., and McKinney, R. S., oil content of nine varieties of soya beans and characteristics of the extracted oils, B., 434.
- and McKinney, R. S., determination of free fatty acids in cottonseed, B., 876. California apricot [kernel] oil, B., 877. Study of the Bolton and Williams grouping of fatty oils according to iodine value of their unsaponifiable matter, B., 878.
- Jamieson, M. C. See Bisby, G. R.
- Jampolskaja, M. M. See Weissmann, G. A.
- Jancke, O., influence of potash manuring on sensitiveness of apple trees to apple aphids and mildew, B., 981.
- Jander, G., and Jahr, K. F., amphoteric hydrated oxides, their aqueous solutions and crystalline compounds. XVI. Vanadates and polyvanadates crystallised from solutions of different  $\eta$  values. XVII. Vanadic acids, polyvanadates, and vanadium salts as examples of the formation and decomposition of multimolecular inorganic compounds in solution, A., 475, 580.
- and Weitendorf, K. F., conductometric determination of small amounts of fatty acids by the visual method, A., 49.
- and Winkel, A., aerosols, especially of ferric oxide, A., 460.
- and Witzmann, H., amphoteric hydrated oxides, their aqueous solutions and crystalline compounds. XIX. Hetero- and iso-polytungstic acids, particularly periodotungstic acids. XX. iso- and heteropolytungstic acids and the optical absorption of 1-tellurium-1-hexatungstic acid, A., 1118, 1243.
- Jander, W., and Hoffmann, Erna, determination of  $\text{CaO}$ ,  $3\text{CaO}\cdot\text{SiO}_2$ ,  $2\text{CaO}\cdot\text{SiO}_2$ ,  $3\text{CaO}\cdot2\text{SiO}_2$ ,  $\text{CaO}\cdot\text{SiO}_2$ , and  $\text{SiO}_2$  in presence of one another, B., 270.
- and Seheele, W., reactions in the solid state at higher temperatures. X. Course of the reaction, A., 1128.
- and Sent, H., the equilibrium  $\text{FeO} + \text{Ni} \rightleftharpoons \text{NiO} + \text{Fe}$  in the melt, A., 352.
- Jandl, E. See Müller, W. J.
- Janek, A., preparation of sulphur sols, A., 777. Colloidal sulphur solutions [prepared] by action of iodine on sodium sulphide, A., 1115.

- Janensch, I., determination of sterility of beer bottles, B., 39. Biological cleanliness of brewery hosing, B., 328. Instability of beers, B., 407. Wild yeast infection [in bottled beers], B., 520. Dependence of beer stability on germ content of the wort, and systematic sampling of worts for biological examination, B., 648.
- Janert, H., heat of wetting of soils, B., 242.
- Janes, E. R., Grover, H. F., and Quinn, E. J., method of enhancing vitamin-A value of cod-liver oil, A., 1088.
- Janeway, P. W., jun., and U.G.I. Contracting Co., preheating coal and cooling coke, (P.), B., 213.
- Janicki, J. See Chrzyszcz, T.
- Janicsek, M., starch and alkaloid content of loaves, A., 438.
- Janin, J., spark spectrum of rubidium in the ultra-violet, A., 2.
- Janitzki, J. See Müller, Erich.
- Janke, A., and Beran, F., microbicidal action of organic acids and their copper salts, A., 537.
- Jankelevitch, Z. A. See Plotnikov, V. A.
- Jankowski, H. See Moraczewski, W. von.
- Janniah, S. L., and Guha, P. C., constitution of the so-called dithiourazole of Martin Freund. V. Isomerism of hydrazodithiodicarbonamides, iminothiolthiodiazoles, and di-R-iminothiodiazoles. VI. Isomerism of hydrazomonothiodicarbonamides, iminothiodiazolones, and monothiodiazoles, A., 726.
- Janot, M. M., and Faudemay, P., determination of hordenine as silicotungstate, A., 1180.
- See also Delahy, R.
- Janoušek, J. See Glazunov, A.
- Jansen, B. C. P., Wibaut, J. P., Hubers, P. J., and Wiardi, P. W., formula of vitamin-B<sub>1</sub>, A., 645.
- Jansen, M. See Kramer, Y. M.
- Jansen, W., reduction of tricalcium phosphate, A., 229. Crystal orientation in spherulites, A., 666. Crystal orientation in parallel-fibre aggregates, A., 1107.
- Janssen, G., and Bartholomew, R. P., effect of potassium on production of proteins, sugars, and starch in cowpea and sugar-beet plants and relation of potassium to plant growth, B., 85.
- See also Bartholomew, R. P., and Young, V. H.
- Janssen, H., and Textile Machine Works, rotary container for centrifugal machines, (P.), B., 848.
- Janssen, S., and Schmidt, J., carotid-sinus polyuria, A., 1197.
- Jantsch, G., Skalla, N., and Grubitsch, H., halides of rare earths. VII. Halides of thulium and lutecium, A., 579.
- See also Ephraim, F.
- Jaretzky, R., and Kühn, F., pharmacognosy of *Tanacetum vulgare*, L., A., 860.
- and Schaub, C., presence of mannitol in the genus *Delphinium*, A., 544.
- Jargstorff, G. W. See Naugatuck Chem. Co.
- Jarman, R., and Abel, A. L., epivan: an intravenous anæsthetic, A., 1076.
- Jarry, R., extraction of pure phenols from tar oils by liquid ammonia, B., 818.
- Jarussov, S. S., determination of adsorptively bound calcium in soils containing calcium carbonate, B., 321.
- Jary, S. G., pyrethrum, B., 171.
- Jarzyński, L., Ludwiczakówna, R., and Suszko, J., apoquinine, A., 1312.
- Jaschik, H. See Peyer, W.
- Jaslan, S. See Broniewski, W.
- Jasnogrodski, I. Z. See Koval, P. Z.
- Jaso-Roldan, L. See Aschner, B.
- Jastrzebski, M., and Suszko, J., polyhalogen derivatives of acetophenone, A., 825.
- Jatkar, S. K. K. See Gajendragad, N. G.
- Jaubert, G. F., alkali peroxide (oxylith) respiratory apparatus, B., 846.
- Jaulmes, P., definition and measurement of distillation coefficient and volatility constant of volatile substances in dilute solution, A., 16. Volatility of slightly volatile acids, A., 770. Increase in volatility of volatile acids in aqueous solution by action of electrolytes having one ion in common, A., 772. Determination of ionisation constant of slightly volatile weak acids by fractional distillation, A., 1245.
- Jaumann, J., determination of electrostriction of gases, A., 452.
- Jauncey, G. E. M., scattering of X-rays by gases and crystals, A., 115.
- and Pennell, F., scattering of X-rays from powdered crystals, A., 558. Scattering of X-rays from powdered crystals at low temperatures, A., 1002.
- Jausseran, C., action of developer on latent images of different ages, A., 238. Evolution of the latent image, A., 238.
- Jay, A. H., high-temperature X-ray camera, A., 1026. Thermal expansion of quartz by X-ray measurements, A., 1237.
- See also Bradley, A. J.
- Jayne, G., esterification of cellulose, (P.), B., 911.
- Jayne, D. W., jun. See Christmann, L. J.
- Jazimirska-Krontovska, M. K. See Krontovski, A. A.
- Jeanmaire, A. See Schwarz, R.
- Jeanprêtre, P., sizing composition [for artificial silk in the form of warp], (P.), B., 384.
- Jeavons, W. R., and Rentschler, M. J., preservation of caustic materials [barium oxide and hydroxide], (P.), B., 105. Treatment of [molten] metals, (P.), B., 924.
- Jebavý, J., adsorption of electrolytes from neutral solutions by calcium carbonate, A., 563. Adsorption of [beet] sugar factory colouring substances and salts by calcium carbonate in neutral aqueous solutions, B., 841. Adsorption of electrolytes by calcium carbonate in the second carbonatation [of beet factory juices], B., 1029.
- Jedele, A., diffusion in the solid state in the metal pairs gold-nickel, gold-palladium, and gold-platinum, A., 1006.
- Jedlitschka. See Fringsheim, E. G.
- Jedrzejovska, A. See Arthus, A.
- Jeep, E. See Kangro, W.
- Jefferson, E. D., and Rodney Hunt Machine Co., kier [for fabrics], (P.), B., 187.
- Jefferson, M. E. See Hendricks, S. B.
- Jeffery, F. H., copper-magnesium alloys examined thermodynamically, A., 454.
- Jeffery, G. H., and Vogel, A. I., dissociation constants of organic acids. VI. Acetic acid, A., 125. Electrical conductivity of aqueous solutions of sodium and potassium hydroxides and limiting mobility of the hydroxyl ion at 25°, A., 353. Electrical conductivities of aqueous solutions of sodium and potassium hydroxides at 25° and validity of the "water correction," A., 784.
- See also Vogel, A. I.
- Jeffery, J. A., Riddle, F. H., and Champion Porcelain Co., pyrometer tube, (P.), B., 448.
- Jeffrey, R. N., and Cruess, W. V., gasometric method for determining oxidase activity, A., 862.
- Jeffreys, H., plasticity and creep in solids, A., 15.
- Jeglinski, H., determination of methyl alcohol in liquids containing ethyl alcohol, B., 181.
- Jelen, F. C. See Thompson, M. de K.
- Jelinck, H., [modified Margosches method for] determination of iodine values [of fatty oils], B., 435.
- Jelinek, H., solubility in alcohol of nitro-celluloses, B., 910.
- Jelinck, J., roasting of weathered pyrites containing sulphates, B., 871.
- Jellinek, V., universal gas regulator, especially suited to the regulation of vacuum, A., 586. Apparatus for pyrolysis of gaseous hydrocarbons, B., 452.
- See also Tropsch, H.
- Jelley, E. B., cause of yellowness in sepia toning, B., 93.
- See also Kodak, Ltd.
- Jellinek, K., and Weberbauer, H., halogen displacement equilibria in fused chlorides and bromides of silver, potassium, and lead:  $\text{Cl}_2 + \text{M}^{\text{II}}\text{Br}_2 \rightleftharpoons \text{M}^{\text{II}}\text{Cl}_2 + \text{Br}_2$ , A., 783.
- See also Burmeister, E., Greiner, B., Hass, K., and Hewsky, D.
- Jellinghaus, W. See Wever, F.
- Jems-Levi, M. Y. See Selivanov, B. P.
- Jen, C. K., continuous electron affinity spectrum of hydrogen, A., 547.
- Jen, J. Y. See Li, Y. H.
- Jenaer Glaswerk Schott & Gen., heat-absorbing glasses, (P.), B., 307. Optical glasses, (P.), B., 307.
- See also Grossmann, M.
- Jenckel, E., strength and elastic limit of thin rods of rock-salt, single crystals of zinc, and glasses, A., 559.
- Jendrassik, L., and Bokrétság, A., biochemical gravimetric methods. III. Weighing of heat-dried filters and precipitates on the torsion balance, A., 758.
- and Falcik-Szabó, E., detection of nitrites and their determination by means of the step-photometer, A., 687.
- Jenkins, C. E., and Don, C. S. D., hæmoglobin concentration of normal English males and females, A., 520.
- Jenkins, F. A., and McKellar, A., mass ratio of the boron isotopes from the spectrum of BO, A., 110.
- and Ornstein, L. S., relative abundance of the carbon isotope, C<sup>13</sup>, A., 333.
- See also Ashley, M. F.
- Jenkins, G. L., and Hoshall, E. M., assay of preparations containing pepsin official in the national formulary, B., 891.
- Jenkins, R. L., and Swann Research, Inc., non-crystalline, highly chlorinated diaryl resins, (P.), B., 756.
- See also Durgin, C. B.
- Jenkins, S. H., biological oxidation of carbohydrate solutions. II. Oxidation of sucrose in presence of different inorganic nitrogen compounds. III. Nitrogen, phosphorus, and potassium balances in percolating filters, A., 536. Design of experimental percolating filters, B., 446.
- See also Norman, A. G.

- Jenkins, S. S., Grignard reaction in synthesis of ketones. I. Deoxybenzoins. III. Preparation and characterisation of a series of mono- and di-chlorodeoxybenzoins, A., 394, 952. Synthesis of isomeric unsymmetrical benzoins, A., 953.
- and Richardson, Edwin M., Grignard reaction in synthesis of ketones. II. Preparation of mono- and di-chlorodeoxybenzoins, A., 610. Benzoin reduction. II. Mechanism of ketone formation; *m*-chlorobenzanisoin, A., 1163.
- Jenkins, T., and Norristown Magnesia & Asbestos Co., water- and flame-proof paper, (P.), B., 700.
- Jenkins, V. N. See Hall, F. W.
- Jenkins, W. J., function of plasticisers in cellulose derivatives, B., 719. Plastics—cellulose esters and ethers and their uscs, B., 928.
- Jenkins, W. S. See Hardy, T. W.
- Jenkins & Co., Ltd., W. J. See Crowther, R. W.
- Jenkins Petroleum Process Co. See Bartlett, K. W., and Swartz, S.
- Jenkner, A. See Hoffmann, E.
- Jenness, L. G., and Intermetal Corp., treatment of bauxite, clay, and intermediate aluminium-bearing ores, (P.), B., 306. Recovery of metals [tungsten] from their ores, (P.), B., 473. See also Intermetal Corp.
- Jennings, D., quality of fish glues: their physical examination, B., 320.
- Jennings, J. B., and Estes, G. P., treatment of crude oil, (P.), B., 853.
- Jennings, J. M., and Standard-I.G. Co., destructive hydrogenation of carbonaceous materials, (P.), B., 902.
- Jenny, H., and Cowan, E. W., utilisation of absorbed ions by plants, A., 649. Importance for plant growth of adsorbed cations in soils, B., 883.
- Jensen, E. See Jensen, V.
- Jensen, H., integrals required for theory of pressure broadening of spectral lines, A., 332. Relativistic treatment of the Fermi atom, A., 660. See also Chen, K. K.
- Jensen, K. A., fluorescence indicators, A., 1132.
- and Rasmussen, O. V., acidimetric determination of sulphide and hydro-sulphide in presence of one another, A., 1132.
- Jensen, K. V. I. See Wernersson, F.
- Jensen, L. B., and Grettie, D. P., action of micro-organisms on fats, B., 513.
- Jensen, O. G., and Gortner, R. A., electrokinetics. XII. Interfacial energy and molecular structure of organic compounds. II.  $Al_2O_3$ -organic liquid interfaces, A., 122.
- Jensen, S. T., reaction and lime condition of some Danish soils, B., 598.
- Jensen, V., and Jensen, E., determination of phenol coefficient of disinfectants, B., 525.
- Jentgen, H., high-speed rayon spinning, B., 56.
- Jentzsch, H. See Zerbe, C.
- Jeppe, C. W. B., and Segal, B., protective filming of liquids, B., 126.
- Jeppesen, C. R., emission spectrum of molecular hydrogen in the extreme ultra-violet, A., 991.
- Jerabek, T. E., and Lincoln Electric Co., [arc welding] electrode, (P.), B., 714.
- Jeremiassen, F., methods of obtaining salts from their solutions (Aktieselskabet Krystal's method), B., 384.
- and Svanoe, H., supersaturation control attains close crystal sizing, B., 95.
- Jermolenko, N., and Lobanovitch, A., swelling of gels in presence of denaturing agents, A., 568.
- Jermstad, A., fatty substances of *Cascara sagrada*, A., 329. Occurrence of a higher homologue of ceryl alcohol in mountain-ash berries, A., 1342.
- and Östby, O., iodometric determination of caffeine in vegetable products, B., 763. Fluid extracts of thyme, B., 764.
- Jeschke, J. See Scheibler, H.
- Jeschki, K., influence of copper on peroxidase reaction of milk, A., 626.
- Jespersen, I. C. See Faurholt, C.
- Jessel, R., total heat and sp. heat of a series of fractions of petroleum oil, and their relation to other properties (Venezuelan oil fractions). X. Temperature variation between 0° and 100° of the sp. heat of the fractions, B., 374. See also Lang, H. R.
- Jessen, V. See Bahr, H. A.
- Jessen, W. See Lemmermann, O.
- Jesser, H., and Schrempf, A., arsenic in the ash of cadavers, A., 1199. See also Mezger, O.
- Jessop, J. A. See Ingold, C. K.
- Jessup, R. S., Thomas recording gas calorimeter, B., 291.
- Jette, E. R., and Foote, F., X-ray study of wüstite (FeO) solid solutions, A., 214. Solid solutions of lead and tin in bismuth, A., 1111.
- and Greiner, E. S., X-ray study of iron-silicon alloys containing 0–15% Si, A., 1007.
- Jeu, K. K., and Alyea, H. N., comparison of organic inhibitors in chain reactions, A., 357.
- Jewel, P. W. See Deuel, H. J., jun.
- Jewell, W. See Carr, F. H.
- Jewell, W. R., and Lyon, A. V., keeping qualities of dried grapes as affected by processing, B., 41.
- Jewell Steel & Malleable Co. See Rycroft, R. T.
- Jewett, J. E., Daniels, L. C., and Selden Co., phthalic anhydride [in the form of] shot-like pellets, (P.), B., 219.
- and Nat. Aniline & Chem. Co., electrolytic cell [for reduction of nitro-, azoxy-, or azo-compounds], (P.), B., 716.
- Jewett, N. J. See Dalglish, H. V.
- Jeżewski, M., applicability of resonance method to measurement of dielectric constants of aqueous solutions, A., 250.
- and Kamecki, J., dielectric constants of dilute solutions of strong electrolytes, A., 901.
- Jeziński, T. W. [with Maruszewska, W.], 9:10-dihydroxy-9:10-di- $\alpha$ -naphthyl-9:10-dihydrophenanthrene and 2:2'-di- $\alpha$ -naphthoyldiphenyl, A., 390.
- Jezowska, B. See Jakób, W. F.
- Jilek, A., and Rynáček, A., determination of tungsten by 8-hydroxyquinoline in a complex oxalate medium, A., 584.
- Jimenez, M. E., occurrence of a specific carbohydrate in *Bacterium perfringens*, A., 190.
- Jimeno, E., and Grifoli, I., physico-chemical cleaning of metals [prior to electrodeposition], B., 153.
- Jirak, L. W., commercial active charcoals. I. Elementary analysis and decolorising power, B., 818.
- Jirgenson, A. See Lutz, O.
- Jirgenson, B., optical activity and coagulation of degradation products of caseinogen. II., A., 407. Coagulation of strongly solvated sols by organic substances and salts. V., A., 461.
- Jirkovský, R. See Šplíchal, J.
- Jison, N. L. See King, R. H.
- Joachim, A. W. R., *Indigofera endecaphylla* as a conservator of fertility of tea soils at Peradeniya, B., 165.
- Joannidis, D., and Vassiliou, A., detection of methyl alcohol, arising from the addition of denatured alcohol to wine, in vinegar, B., 1030.
- Job, P., constitution of hydrochloric acid solutions of cobalt salts, A., 228.
- Jochims, J., thread-forming property of physiological liquids and methods of measurement, A., 84.
- Jochum, K. See I. G. Farbenind.
- Jodidi, S. L., isolation and identification of organic nitrogenous and non-nitrogenous compounds occurring in the Alaska pea. I. Presence of citric acid, A., 1343.
- Joehneck, K. M., and Blair, J. M., Herschel effect as a result of simultaneous forward and reverse reactions, A., 359.
- Joel, A. H., methods and scope of soil surveys in Western Canada, A., 803. Zonal sequence of soil profiles in Saskatchewan, Canada, A., 1269.
- Joffé, A., Nasledov, D. N., and Nemenov, L., behaviour of electrons and "holes" in cuprous oxide, A., 999. See also Joffé, Anna.
- Joffé, Anna, and Joffé, A., photo-effect in cuprite crystals, A., 764.
- and Joffé, A. F., crystal photo-effect, A., 999.
- Joffé, A. F., physics in agronomy, B., 932. See also Joffé, Anna.
- Joffe, E. W. See Mudd, S.
- Joffe, I. S., diaryl compounds and their derivatives. III. Oxidation of 2-hydroxyphenanthrene, A., 1287. Lysimeter studies. II. Movement and translocation of soil constituents in the soil profile. III. Movements and translocation of nitrogen and organic constituents in the profile of a podsollic soil, B., 401, 559.
- and Watson, C. W., soil profile studies. V. Mature podsoles, B., 482.
- Joffe, O. G. See Kaplan, G. A.
- Joffe, P. M. See Rakowski, V. E.
- Johann, A. C. See Manahan, E. H.
- Johannesson, J. See Lau, E.
- Johannissian, A., and Buniatian, H., occurrence of vitamin-C in the Eriwan grape, A., 646.
- Johannson, H., immersion objective of the geometrical electron microscope, A., 1265. See also Brüche, E.
- Johansen, E. M., and Gray Processes Corp., preparation of sulphur compounds and mercaptans [from unsaturated hydrocarbons], (P.), B., 218.
- Johansson, A. See Hägglund, E.
- Johansson, D., rapid permanganate method for determining degree of disintegration of sulphite- and sulphate-cellulose, B., 1002.
- Johansson, T., exact focussing X-ray spectrometer, A., 689.



- Johlige, H. J. See Krupp Grusonwerk A.-G., F.
- Johlin, J. M., osmotic relationships in hen's egg, A., 522.
- John, G., soil reaction and growth of perennial blue lupin (*Lupinus polyphyllus*), B., 599. Ultimate analysis of humus, B., 882.
- John, Hanns, carvacrol. I. 5-Acetocarvacrol. II. 3-Acetocarvacrol, A., 827. and Behmel, G., quinoline series. XL. Synthesis of 2-phenyl-4-quinolyl-aminoacetic acid. XLI. Derivatives of  $\beta$ -2-phenyl-4-quinolylaminoacetic acid, A., 165, 400. Photochemical oxidation of  $\alpha$ -picoline, A., 399. Quinolono derivatives. IX. Photochemical oxidation of methylated 2-phenylquinolines, A., 721.
- John, Hans, and Paper Patents Co., [paper-pulp] bleaching process, (P.), B., 665.
- John, R., and Aquatone Corp., light-sensitive film and sensitiser therefor, (P.), B., 733. and Automotive Process Corp., composition for maintaining efficiency of [internal-combustion] engines, (P.), B., 52.
- John, W. E., and Beyers, E., electrical measurement of cyanide solution activity, A., 29.
- Johne, F. See Starkenstein, E.
- Johner, W. See Stahel, E.
- Johns, C. K. See Lochhead, A. G.
- Johnsen, A. See Hartwig, W.
- Johnsen, B., and Reese, C. H., variations in yield and quality of sulphite pulp made of spruce from different sources, B., 742.
- Johnson, A., and Combustion Utilities Corp., water-gas, (P.), B., 8. Selective separation of liquids, (P.), B., 529.
- Johnson, A. A., Kalling, B. M. S., and Delwig, C. von, purification of iron [sponge], (P.), B., 195. Reduction of [iron] ore, (P.), B., 711.
- Johnson, A. G. See Leukel, R. W.
- Johnson, A. H., and Green, J., wheat and flour studies. XVIII. Nature of the acid responsible for increase in acidity which occurs in flours during storage, B., 487. See also Conn, L. W., Myers, R. P., and Weisberg, S. M.
- Johnson, C., and Gregson, J., retort settings for manufacture of gas and coke, (P.), B., 8.
- Johnson, C. A. See Werkman, C. H.
- Johnson, C. H., optical activity. I. Valency theory. II. New type of polarimeter, A., 114, 585. and Mead, A., line absorption of chromic salts in relation to co-ordination, A., 444. Optical activity. III. *d*- and *l*-Cobaltioxalates, A., 581.
- Johnson, C. R., and Amersil Co., Inc., electric furnace, (P.), B., 795.
- Johnson, Clyde R., and Eulett, G. A., solubility of silver chloride in water at 0°, A., 773. and Low, G. W., jun., solubility of silver chloride in nitric acid at 0°, A., 773.
- Johnson, E. A. See Harris, L.
- Johnson, E. B. See Brit. Celanese.
- Johnson, E. G. See Kraus, C. A.
- Johnson, E. M. See Flanley, M. G.
- Johnson, F. M. G. See Toole, F. J.
- Johnson, G. A., and Miner, Inc., W. H., toughening of steel, (P.), B., 591.
- Johnson, G. W. See Reese, L. F.
- Johnson, H. W., nature of injury caused by potato leaf-hopper on forage legumes, B., 565.
- Johnson, I. J., relation of agronomic practice to quantity and quality of oil in flax seed, B., 85.
- Johnson, J. B., and Oberg, T., mechanical properties at -40° of metals used in aircraft construction, B., 393.
- Johnson, J. M. See Stockman, R., and Voegtlin, C.
- Johnson, J. R., abnormal reactions of magnesium benzyl chloride. II. Mechanism of the *o*-tolyl rearrangement, A., 963. See also Bean, F. R., Bush, M. T., Campen, M. G. van, jun., Entemann, C. E., jun., Fordyce, C. R., Riebsomer, J. L., and Shepard, A. F.
- Johnson, K. A. See Yancey, H. F.
- Johnson, L. M. See Mallon, M. G.
- Johnson, M. C., analysis of hydrogen absorption phenomena, A., 1240. and Starkey, T. V., gas adsorption on electrically conducting films during their condensation from molecular rays, A., 563.
- Johnson, M. H., jun., almost closed shells, A., 552. Vector model and Pauli principle, A., 552. Intensities in atomic spectra, A., 1220. and Breit, G., magnetic interaction of a valency electron with inner shells, A., 884.
- Johnson, M. J., Peterson, W. H., and Fred, E. B., intermediary compounds in the acetone-butyl alcohol fermentation, A., 867. See also Peterson, W. H.
- Johnson, R. C., and Dunstan, E. G., intensity distribution in the spectrum of beryllium oxide, A., 884.
- Johnson, R. C. H., Reichert-Meissl value of the fat in Gorgonzola cheese, B., 889.
- Johnson, R. F. See Woods, E.
- Johnson, R. N., setting of plaster of Paris and properties of the hardened product, B., 671. See also Gibson, C. S.
- Johnson, S. J., and Neon Process, Inc., luminous tube, (P.), B., 926.
- Johnson, S. P., Williams, P. S., and United States, prevention of fire hazards in operating upon and cleaning containers of inflammable liquids or gases, (P.), B., 97.
- Johnson, S. W., regeneration of reducing properties of oxidised lemon juice, A., 1090.
- Johnson, T. B., and Dyer, E., pyrimidines. CXXXV. Uracil glycol, A., 1171. See also Bergmann, W., Folkers, K., Haring, K. M., Harwood, H. J., and Hooper, F. E.
- Johnson, W. See Parry, T. H.
- Johnson, Wallace C., metallic linings for [sulphite-pulp] digesters, B., 392.
- Johnson, Warren C., Morey, G. H., and Kott, A. E., nitrogen compounds of germanium. III. Germanous imide, A., 38. and Piskur, M. M., solubility of lithium in liquid ammonia at low temperatures, A., 220. and Sidwell, A. E., nitrogen compounds of germanium. IV. Action of ammonia and amines on germanium tetraiodide, A., 683.
- Johnson & Co., A. See under Johnson, A. A.
- Johnson & Co., Ltd., S. H. See Davis H. H., and Hooton, A. J. S.
- Johnson & Co. (Paper), Ltd., A. H., and Martinez, M., photographic [colour] processes, (P.), B., 1037.
- Johnson & Johnson, waterproof fabrics, (P.), B., 345.
- Johnson, Matthey & Co., Ltd., and Soc. de Prod. Chim. des Torres Rares, dehydration of electrolysable salts of easily oxidisable metals, (P.), B., 964. Purification of magnesium chloride, (P.), B., 964. Electrolytic production of magnesium, (P.), B., 972. See also Box, E. R., and Powell, Alan R.
- Johnston, A. C., and Hercules Powder Co., separation of terpene compounds from gasoline used for extracting rosin from wood, (P.), B., 928.
- Johnston, C. B. See Wakeham, G.
- Johnston, C. G., Ravdin, I. S., Riegel, C., and Allison, C. L., gall-bladder function. IX. Anion-cation content of bile from normal and infected gall-bladder, A., 851. See also Andrews, J. C., and Ravdin, I. S.
- Johnston, C. W., study of pure liquid sulphur dioxide by microphotography, B., 17.
- Johnston, D. R. See Brit. Celanese.
- Johnston, E. F., coating material, (P.), B., 879.
- Johnston, E. S., functions of radiation in physiology of plants. II. Effects of near infra-red radiation on plants, A., 196. See also Brackett, F. S., and Hoover, W. H.
- Johnston, F. See Tongberg, C. O.
- Johnston, G. B. See Jones, H. D.
- Johnston, (Miss) H. E., and Le Fèvre, R. J. W., nitration of di-*p*-tolyl- and di-*p*-chlorophenyl-phenylpyrylium perchlorates, A., 163.
- Johnston, Herbert L., and Hobart Manuf. Co., mixing machine, (P.), B., 130.
- Johnston, Herrick L., and Chapman, A. T., heat-capacity curves of the simpler gases. I. Heat capacity, entropy, and free energy of gaseous nitric oxide from near 0° abs. to 5000° abs., A., 229.
- Cuta, F., and Garrett, A. B., solubility of silver oxide in water, in alkali, and in alkaline salt solutions [at 25°]; amphoteric character of silver hydroxide, A., 773.
- and Dawson, D. H., hydrogen isotope effect in the OH bands, A., 763. Heat capacity curves of the simpler gases. III. Heat capacity, entropy, and free energy of neutral OH from near 0° abs. to 5000° abs., A., 1005.
- Dawson, D. H., and Walker, (Miss) M. K., new band in spectrum of the OH molecule, A., 445.
- and Walker, (Miss) M. K., dissociation of oxygen to 5000° abs.: free energy of atomic oxygen, A., 227. Heat-capacity curves of the simpler gases. II. Heat capacity, entropy, and free energy of gaseous oxygen from near 0° abs. to 5000° abs., A., 229. Raman effect in water vapour, A., 1102. See also Dawson, D. H.
- Johnston, H. W. See Jones, G. D. O., and Sanderson, H.
- Johnston, R. See Derby Cables, Ltd.
- Johnston, S. A. See Campbell, A. N.

- Johnston, S. M. See Hayman, J. M., jun.  
 Johnstone, P. N. See Orr, T. G.  
 Joiner, W. A., Hughson, W. G., and McDowell, A. K. R., briquetting of New Zealand coals, B., 531.  
 Jols, H. S., Manjunath, B. L., and Rao, S. V., seeds of *Psoralea corylifolia*, Linn. I., A., 651.  
 See also Iyengar, M. S.  
 Jokisch, M. K. See Wels, P.  
 Jolibois, P., graphic representation of chemical equilibria, A., 1012.  
 and Chaudron, G., preparation of lead chlorophosphate, (P.), B., 785.  
 and Cloutier, L., basic lead salts, A., 38.  
 Basic phosphates, A., 38.  
 Joliot, F. See Curie, (Mme.) I.  
 Jolles, Z. E. [with Busoni, E.], oxidising action of isomeric diazonium hydroxides, A., 389.  
 and Socci, M., presence of alkali nitrites in certain smokeless powders. II. Distribution of the nitrites in the mass of the powder, B., 493.  
 Jolly, V. G., accelerated weathering of paints and varnishes, B., 927.  
 Jolson, J., and Ivanova, V., determination of the "foots" content in vegetable oils, B., 753.  
 Jominy, W. E., and Archer, R. S., stainless-steel linings for vessels used in chemical processes, B., 509.  
 Jonas, K. G., beating [of pulp] in the hollander and Jokro mill, B., 910.  
 Jonas, V., vital properties of yeast-plasma, A., 1332.  
 Jones, A., leather cloth, B., 958.  
 Jones, Brinley. See Haigh, B. P.  
 Jones, Brynmor, rotatory dispersion of organic compounds. XXI. Cyclic derivatives of tartaric and malic acids. XXII. Borotartarates and bromomalates, A., 889, 1001. Electrolytic separation of lead as peroxide in non-ferrous alloys. I. Determination of small amounts of lead in copper and copper-rich alloys, B., 193. Determination of phosphorus in "basic" iron, B., 271. Preparation of lead and lead alloys for microscopic examination, B., 921.  
 and Morgan, H. E., nitrogen-hardening of steels. I. Nitriding properties of nitralloy steels, with special reference to the effect of the constituent elements, B., 151.  
 See also Singleton, W.  
 Jones, B. F. See Dill, D. B.  
 Jones, B. W. See Gen. Electric Co.  
 Jones, C. H. See Ellenberger, H. B., and Newlander, J. A.  
 Jones, C. L., carbon dioxide, (P.), B., 465.  
 Jones, C. W., and Dow Chem. Co., bromides, (P.), B., 464.  
 Grebe, J. J., and Jones Chem. Co., extraction of iodine [from brine], (P.), B., 189.  
 and Jones Chem. Co., treating brines [to separate bromine and iodine], (P.), B., 913.  
 Jones, D. B., and Gersdorff, C. E. F., digestibility of proteins *in vitro*. V. Rate of liberation of cystine on hydrolysis of caseinogen; observations on colorimetric tests for cystine when applied to peptic and acid digests of caseinogen, A., 1081.  
 See also Csonka, F. A.  
 Jones, D. C. See Prizer, E. L.  
 Jones, D. C. R. See Imperial Chem. Industries.  
 Jones, D. G. (Birmingham), Pfeil, L. B., and Griffiths, W. T., precipitation-hardening nickel-copper alloys containing aluminium, B., 921.  
 Jones, David G., and Wood, C. E., oil-field water analysis. I. Determination of the sulphate radical by benzidine and errors inherent in the method. II. Volumetric determination of calcium in presence of magnesium, B., 366.  
 Jones, E. See Davies, W. M.  
 Jones, E. A. See Cady, H. P.  
 Jones, E. C. S., and Kenner, J., catalytic decomposition of nitroso- $\beta$ -alkylamino-ketones. I. Preparation of diazomethane; evidence of occurrence of diazotisation in aliphatic series, A., 598.  
 Jones, E. Gabriel, extractives of rum, B., 281.  
 Jones, E. Gwynne, hyperfine structure of perturbed series, A., 881. Hyperfine structure in the spark spectrum of cadmium, A., 1095.  
 Jones, E. J. See Wulf, O. R.  
 Jones, E. M., and Parker Rust Proof Co., preparation of [metal] surfaces for coating, (P.), B., 433.  
 Jones, E. R. See Activated Sludge, Ltd.  
 Jones, E. T., structure of thin celluloid films. I. and II., A., 1236.  
 and Robertson, A., natural glycosides. V. Ruberythric acid, A., 1146.  
 Jones, F. A. See Dunlop Rubber Co.  
 Jones, F. B., [rubber] estate practice and its relation to factory requirements, B., 1022.  
 Jones, Frank Butler, and Minerals Separation, Ltd., recovery of gold from minerals [oxidised copper ores], (P.), B., 473.  
 Jones, F. Llewellyn, uniform positive column, A., 548.  
 See also Townsend, J. S.  
 Jones, Frank L. See Fink, C. G.  
 Jones, F. S., and Little, R. B., acid milk in bovine mastitis, A., 737. Proteins of the whey fraction in milk from normal and abnormal udders, A., 737. Significance of change in antigenic volume as the result of specific agglutination, A., 1084.  
 Jones, G., and Bradshaw, B. C., conductance of electrolytes. V. Redetermination of the conductance of standard potassium chloride solutions in absolute units, A., 676.  
 and Talley, S. K., viscosity of aqueous solutions as a function of concentration. I. II. Potassium bromide and potassium chloride, A., 347, 1243.  
 See also Serrallach, J. A.  
 Jones, G. D. O., Alexander, C., Ross, T. W., and Johnston, H. W., proposed standard instrument for classification of paper-making fibres according to length, B., 502.  
 Ross, T. W., and Johnston, H. W., fibre-strength aspects of newsprint manufacture, B., 542.  
 Jones, G. E. See Lewis, W. J.  
 Jones, G. G., and Miles, F. D., tensile strength of nitrocellulose films, B., 910.  
 Jones, G. W., Miller, W. E., and Seaman, H., explosive properties of propylene dichloride-air mixtures, A., 910.  
 Seaman, H., and Kennedy, R. E., explosive properties of dioxan-air mixtures, A., 1249.  
 See also Lewis, Bernard.  
 Jones, H. See Hoag, J. B.  
 Jones, H. A., rotenone in a species of *Spatholobus*, A., 650. Rotenone in species of *Derris* and *Lonchocarpus*, A., 1343. Rotenone content of *Derris* root, cube root, and other plant materials, B., 249. Assay of plant material for its rotenone content; extraction method, B., 249.  
 Gersdorff, W. A., Gooden, E. L., Campbell, F. L., and Sullivan, W. N., loss of toxicity of deposits of rotenone and related materials exposed to light, B., 654.  
 and Smith, C. M., colour test for rotenone, B., 250.  
 Jones, H. C., reactions during vulcanisation [of rubber]. III. Multiple-accelerator effect, B., 979.  
 Jones, H. D., Crane, K. D., Johnston, G. B., and Henry, C. R., effects of agave concentrate in the treatment of experimental nephritis induced in animals. I. Nephritis induced in rabbits by the use of tartrates, A., 739.  
 and Goslin, R., [determination of uranium] by the magneto-optic method, A., 1218.  
 Hughes, R. C., and Johnston, G. B., effects of agave concentrate in the treatment of experimental nephritis induced in animals. II. Nephritis induced in dogs by the use of uranium nitrate, A., 739.  
 Jones, I. H., and Koppers Co. of Delaware, treatment of hydrocarbons, (P.), B., 537, 614.  
 Jones, J. E. See Brit. Celanese.  
 Jones, James Hazlitt, parathyroid glands and toxicity of irradiated ergosterol, A., 542.  
 See also Asher, D. W.  
 Jones, John H., and Best Foods, Inc., treatment of pimentos, (P.), B., 891.  
 Jones, J. W., effect of reduced oxygen pressure on rice germination, B., 403.  
 Jones, L. B., and Jones Gas Process Corp., making gas from oil, (P.), B., 498.  
 Jones, L. C., and Chem. Eng. Corp., nitrogen-hydrogen gas mixtures free from oxygen, (P.), B., 267.  
 Jones, L. D., and Sharples Specialty Co., production and recovery of dispersed substances [e.g., white lead], (P.), B., 157. Separation of immiscible substances, (P.), B., 371. Centrifugal machine, (P.), B., 528. Separation of [liquid] substances, (P.), B., 528. Separation of oil from mixtures thereof with water, (P.), B., 576. Separation of mixtures of substances, (P.), B., 576. Dewaxing of petroleum oils, (P.), B., 696.  
 See also Sharples Specialty Co.  
 Jones, L. H. See Fuller, J. E.  
 Jones, L. L., electron-discharge cathode, (P.), B., 716.  
 Flanzer, J. A., Reisman, E., and Technidyne Corp., activation and reactivation of electron-emission tubes, (P.), B., 716.  
 Flanzer, J. A., and Technidyne Corp., preparation of electrical resistance units, (P.), B., 717.  
 Jones, M. See Imperial Chem. Industries.  
 Jones, M. G., grassland management and its influence on sward. II. Management of a clovery sward and its effects, B., 884.

- Jones, *N. B.* See Gen. Electric Co.  
 Jones, *O.*, nitrite in cured meats, *B.*, 409.  
 Air conditioning in food factories, *B.*, 1038.  
 Jones, (*Miss*) *P.* See Bradley, *A. J.*  
 Jones, *P. W.* See Peffer, *H. C.*  
 Jones, *R. C.* See Bryant, *A. P.*  
 Jones, *R. H.* See Grieb, *C. M. W.*  
 Jones, *R. M.*, reducing inflammability of fumigants [for control of insect pests in grain] with carbon dioxide, *B.*, 600.  
 Jones, *S. E.*, Hill, *W. H.*, and Bond, *T. A.*, control of the bitterweed plant poisonous to sheep in the Edwards Plateau region, *B.*, 519.  
 Jones, *T. D.* See Thomas, *W. M.*  
 Jones, *W.* See Murphy, *A. F.*  
 Jones, *W. A.* See Trainer, *J. E.*  
 Jones, *W. E.* See Davies, *W. H.*  
 Jones, *W. J.*, Davies, *W. C.*, and Dyke, *W. J. C.*, refractivities of liquid compounds of phosphorus, *A.*, 663.  
 Jones, *W. N., jun.*, and Reid, *E. E.*, composition and possible constitution of several sulphur dyes, *A.*, 76.  
 Jones, *W. O.* See Cahn, *R. S.*  
 Jones, *W. R.*, minerals in silicotic lungs, *A.*, 1192.  
 Jones, *W. S.* See Christiansen, *W. G.*  
 Jones Chemical Co., Inc. See Jones, *C. W.*  
 Jones-Dabney Co. See Crystler, *F. M.*  
 Jones Gas Process Corporation. See Jones, *L. B.*  
 Jonsescu, *A.*, absorption spectrum of sulphur dioxide in ultra-violet, *A.*, 884.  
 Jonnart, *R.* See Millot, *J.*  
 Jonsson, *A. E.*, vacuum drying apparatus, (*P.*), *B.*, 176.  
 Joos, *B.* See Tisza, *E. T.*  
 Joos, *Georg.*, and Schnetzler, *K.*, line absorption spectra of chromium complex salts, *A.*, 336.  
 Joos, *Gustav.*, adenine-nucleotide and nucleoside content of commercial organ extracts acting on the circulation, *B.*, 525.  
 Jordan, *A.* See Flatt, *R.*  
 Jordan, *C. B.* See Hayden, *A. H.*, and Sprankle, *C. N.*  
 Jordan, *C. W.* See Ward, *A. L.*  
 Jordan, *E. B.*, and Brode, *R. B.*, elastic scattering of electrons by mercury atoms, *A.*, 202.  
 Jordan, *E. O.*, and Burrows, *W.*, substance causing *Staphylococcus* food poisoning, *A.*, 753.  
 Jordan, *E. P.*, and Gaston, *D.*, blood-uric acid in disease, *A.*, 304.  
 Jordan, *F.*, [aluminium-]plated zinc sheet, (*P.*), *B.*, 794.  
 See also Hilpert, *S.*  
 Jordan, *R. C.*, and Chibnall, *A. C.*, fat metabolism of leaves. II. Fats and phosphatides of the runner bean (*Phaseolus multiflorus*), *A.*, 436.  
 Jordan, *S.*, and Applied Sugar Labs., Inc., [moisture-retaining] treatment of tobacco leaves and composition therefor, (*P.*), *B.*, 813.  
 and Ross & Rowe, Inc., food product and its production, (*P.*), *B.*, 283.  
 Jorek, *E.*, simplified rapid method for examination of mineral salves with regard to  $\text{Ag}^+$ ,  $\text{Hg}^{++}$ ,  $\text{Pb}^{++}$ ,  $\text{Bi}^{+++}$ ,  $\text{Al}^{+++}$ ,  $\text{Zn}^{++}$ ,  $\text{K}^+$  as cations and  $\text{NO}_3^-$ ,  $\text{I}^-$ ,  $\text{Cl}^-$ ,  $\text{OAc}^-$ , and boric acid as anions, *B.*, 523.  
 Jores, *A.*, do basal metabolism and insensible perspiration as predicted by the Benedict-Root method correspond? *A.*, 305.  
 Jores, *A.*, melanophore hormone, *A.*, 1211. Presence of melanophore hormone in human body-fluids, *A.*, 1335.  
 and Lenssen, *E. W.*, are the erythrochrome reaction of the minnow and the melanophore reaction of the frog identical? *A.*, 1086.  
 and Velde, *W.*, presence of melanophore hormone in human organs, *A.*, 1335.  
 Jorissen, *W. P.*, and Belinfante, *A. H.*, induced oxidation of lactic acid by ascorbic acid and the cancer problem, *A.*, 1252.  
 and Dussen, *A. A. van der*, reaction regions. XXIV. Explosion regions of gas mixtures in which an oxygen compound is used in place of oxygen; nitrous oxide as oxygen provider. III. Explosion regions  $\text{CH}_4$ - $\text{N}_2\text{O}$ - $\text{A}$  and  $\text{CH}_4$ - $(\text{N}_2 + 0.5\text{O}_2)$ - $\text{A}$ , *A.*, 573.  
 Dussen, *A. A. van der*, Matla, *W. P. M.*, and De Liefde, *J. H.*, reaction regions. XXV. Systems of two gases and one solid, and of two solids and one gas, *A.*, 790.  
 and Hermans, *J. J.*, reaction regions. XXIII. Prevention of explosive reactions in gas and vapour mixtures by small amounts of various substances. II., *A.*, 469.  
 Jorns, *G.*, influence of short electrical waves on leucocyte oxidases, *A.*, 1201.  
 Jorpes, *E.* See Hammarsten, *E.*  
 Joseph, *H.* See Gen. Chem. Co.  
 Josephson, *B. A.*, dissociation constants of bile acids, *A.*, 1012. Aminosulphonio acids. I. Benzoylation of aminosulphonio acids, *A.*, 1291.  
 Josephson, *K.*, and Roffe, *S.*, synthetic hexose phosphates. II., *A.*, 428.  
 Josephy, *B.*, reflexion of mercury molecular rays at crystal cleavage faces, *A.*, 441.  
 See also Eekelen, *M. van*.  
 Josephy, *E.*, parahydrogen, *A.*, 578.  
 Joshi, *R. M.*, shape of the electro-capillary curve of mercury in capillary-inactive electrolytes, *A.*, 468.  
 See also Paranjpe, *G. R.*  
 Joshi, *Shiam S.*, additive compounds of pyridine, *A.*, 513.  
 and Sane, *S. M.*, polyhalogenodinitrobenzenes, *A.*, 1155.  
 Joshi, *Shridhar S.*, and Lal, *A. N.*, coagulation of colloids. IV. Variation of surface tension during coagulation of manganese dioxide sol, *A.*, 674. Protective action of colloids. III. Influence of sucrose and sodium oleate on stability of colloid manganese dioxide, *A.*, 1011.  
 and Narayan, *V. L.*, coagulation of colloids; the wall effect, *A.*, 777.  
 and Rao, *A. J.*, protective action of colloids. I. Ionic adsorption in the coagulation of protected sols. II., *A.*, 902.  
 and Viswanath, *K. S.*, coagulation of colloids. V. Variation of viscosity during coagulation, *A.*, 1011.  
 Joshua, *W. P.* See Brit. Industrial Solvents Ltd., and Distillers Co., Ltd.  
 Josien, (*Mlle.*) *M. L.*, kinetic study of action of chlorine water on silver nitrate, *A.*, 1017. Kinetics of action of iodine water on silver nitrate, *A.*, 1250.  
 Joslyn, *M. A.*, and Marsh, *G. L.*, rôle of peroxidase in deterioration of frozen fruits and vegetables, *A.*, 1093. Changes occurring during freezing, storage, and thawing of fruits and vegetables, *B.*, 41, 443, 603, 1032, 1082.  
 and Mrak, *E. M.*, use of sulphurous acid and sulphites in preparation of fresh and frozen fruit for bakers' use, *B.*, 443.  
 and Sherrill, *M.*, inversion of sucrose by invertase at low temperatures, *B.*, 486.  
 Joss, *E. J.* See Internat. Latex Processes, Ltd.  
 Jost, *H.*, urine examination in chronic injury by benzene and benzene derivatives, *A.*, 311.  
 Jost, *W.*, rate of diffusion of metals in gold and silver, *A.*, 561.  
 and Rüter, *H.*, conductivity of  $\alpha$ -silver sulphide. II., *A.*, 556.  
 and Schweitzer, *Hans*, transport numbers of solid alkali halides, *A.*, 353.  
 Joublane, *J. C.* See Baker, *R. W.*  
 Jouis, *E.* See Brioux, *C.*  
 Joukowsky, *E.*, frequent presence of pyrite crystals in the diatoms of lacustrine chalk: their probable bacterial origin, *A.*, 1137.  
 Jouravsky, *G.*, Charczenko, *P.*, and Choubert, *G.*, magnetic susceptibility of magnetites from basic eruptive rocks, *A.*, 1030.  
 Jonrdan, *A.* See Sagui, *C. L.*  
 Jousé, *W. P.* See Belenki, *M. S.*  
 Jovanovits, *J.*, evaluation of bating materials by means of collagen hide fibres, *B.*, 437.  
 Jowett, *M.*, reactions of lead compounds with serum and serum-models, *A.*, 204.  
 and Quastel, *J. H.*, glyoxalase activity of the red blood-cell; function of glutathione, *A.*, 748.  
 Joyet-Lavergne, *P.*, oxidising power of the chondriosome and cytoplasmic sexualisation of fungi, *A.*, 103. Oxidising power of chondriosome, *A.*, 988.  
 Józefowicz, *E.*, kinetics of reaction between arsenious acid and iodine. II. Influence of neutral salts on velocity of reaction and equilibrium point, *A.*, 31.  
 Józsa, *S.* See Gore, *H. C.*  
 Juday, *C.*, and Birge, *E. A.*, dissolved oxygen and oxygen consumed in lake waters of N.E. Wisconsin, *B.*, 125.  
 Judd, *D. B.*, 1931 I.C.I. standard observer and co-ordinate system for colorimetry, *A.*, 1265.  
 Judson, *W.* See Bacon, *R. F.*  
 Jürgens, *R.*, electrophoresis of ferrous and ferric iron through undamaged skin, *A.*, 312.  
 and Spehr, *G.*, oxalic acid metabolism, *A.*, 741.  
 See also Köhler, *P.*  
 Jürgens, *W.* See Kling, *M.*  
 Jürgensen, *J. J.* See Baumberger, *J. P.*  
 Jüttemann, *R.* See Langenbeck, *W.*  
 Juferev, *V. F.*, and Kuzmin, *L. L.*, simultaneous manufacture of sulphuric and hydrochloric acids, *B.*, 225.  
 Juge-Boirard, *G.* See Bonnier, *C.*  
 Jugovics, *L.*, inclusions of basalt-jasper in the basalt of Ság Mtn., Hungary, *A.*, 483.  
 Jukes, *T. H.*, and Kay, *H. D.*, basic amino-acids of livetin, *A.*, 80. Immunological behaviour of the second protein [livetin] of hen's egg-yolk, *A.*, 298.

- Julian, P. L., and Passler, W., thermal interconversion of mixed benzoin, A., 161.
- and Piki, J., indole series. I. Synthesis of 2-benzylindoles, A., 721.
- Juliard, A., retarding action of glass on Landolt's reaction, A., 234.
- Julius, H. W. See Eekelen, M. van.
- Jundell, I., and Magnusson, H., calcium and phosphorus content of blood in children with caries-free and carious teeth, A., 415.
- Jung, Adolphe, and Hakki, A. C., effect of adrenal operations on blood-calcium in man, A., 192.
- Jung, Albert, evaluation of food and drugs containing vitamin. II. Vitamin-B complex, A., 1090.
- See also Fawns, H. T.
- Jung, F. See Micheel, F.
- Jung, G., and Ziegler, W., simple preparation of pure dry hydrogen bromide, A., 797.
- See also Koenigs, E.
- Jung, Gerhard, See Dahmlos, J.
- Jung, H., thuringite and chamosite, A., 251. Basalt of the Kammerbühl near Eger, A., 1029.
- Jung, J., fish meal as a feeding-stuff. I. Review of the fish-meal industry, B., 444.
- Jung, W., determination of phosphorous, hypophosphorous, phosphoric, and hypophosphoric acids, A., 583.
- Jung, W. N., sintering of cement clinker stone, B., 269.
- Jungbluth, H., and Heller, P. A., blast supply, coke charge, and melting efficiency in cupolas, B., 966.
- Junge, C., *cis-trans*-isomerism of isoeugenol, A., 390.
- Jungkunz, R. See Pritzker, J.
- Jungnickel, T., mechanical dyeing boilers, (P.), B., 225.
- Jungnitz, G. See Wülfinghoff, F. A. M.
- Jungwirth, O. See Keil, O. von, and Schmidt, Max.
- Junien, M., comparison of Scholler and Junien processes for hydrolysis of cellulose, B., 841.
- Junker, M., soya-bean extraction, B., 1065.
- Junker, O., [bright] annealing of [strip] metallic materials, (P.), B., 235. Annealing of metal [brass] strip in continuous annealing furnaces, B., 551.
- Junker Ges.m.b.H., O., continuous annealing furnace, (P.), B., 69.
- Junkersdorf, P., storage of glycogen and glycogen-storing disease, A., 1322.
- and Meyer, K., food value of *Phaseolus vulgaris*, A., 198.
- and Mischkat, M., is glycogen a constituent of urine? A., 1320.
- See also Bong, E.
- Junkmann, K., and Schoeller, W., thyreotropic hormone of the anterior pituitary lobe, A., 539.
- Junquera, M. See Chodat, F.
- Jurany, H., determination of chlorogenic acid in coffee, B., 1033.
- Juriev, J. K. See Zelinsky, N. D.
- Jurišić, P. J., physical chemistry of resorption. IV., A., 527.
- Jurist, A. E. See Christiansen, W. G., and Lauter, W. M.
- Jurist, P. See Tsherkes, L. A.
- Jurriaanse, T. See De Haas, W. J.
- Jusatz, H. J., determination of blood-catalase, A., 521. Effect of vitamins on blood-catalase, A., 645. Synergism amongst vitamins, A., 1087.
- Juschkevitch, S., Russian soya-bean oil, B., 1065.
- Brilling, S., and Antonemkov, F., extraction of oil from soya beans, B., 753.
- Jusé, W., stopping layer of rectifiers, A., 999.
- Jussila, A. See Sihvonen, V.
- Jussin, W. See Leites, S.
- Just, G., dependence of breakdown strength on thickness for very thin layers of Ta<sub>2</sub>O<sub>5</sub>, A., 555.
- See also Schwalbe, C. G.
- Juza, R., and Blanke, W., tensimetric investigations of behaviour of some charcoals towards sulphur, A., 221.
- and Meyer, Werner, affinity. LIX. Ruthenium sulphides, A., 920.
- K.
- Kabaker, J. See Merklen, P.
- Kabakjian, D. H., decay of luminescence and light absorption in phosphorescent materials, A., 1229.
- Kabanov, B., mechanism of electrolytic degreasing of metals, B., 1015.
- and Frumkin, A., size of electrolytically generated gas bubbles, A., 1016, 1115.
- Kabashima, I., and Suzuki, B., synthesis of lecithins and cephalins. I. Synthesis of dipalmityl- $\beta$ -cephalin and - $\beta$ -lecithin, A., 374.
- Kabat, E. See Lehrman, L.
- Kabatschnik, M. J. See Preobraschenski, N. A.
- Kabushiki Kaisha Namiki Seisakusho, writing inks, (P.), B., 316.
- Kachinsky, N. A., freezing and thawing and water content of forest and field soils, B., 241. Determination of physical properties of soils, B., 242. Root systems of plants in soils of podsol type, B., 244.
- Kaden, E. See Norpoth, L.
- Kadensky, B., observation of mixtures of edible fats in various solvents in ultra-violet light, B., 1016.
- Kadlec, J., new viscosimeter [for lubricating oil, etc.], B., 527.
- Kadmer, E., solid dispersions in oil, B., 419.
- Kadōno, M. See Bitō, K., and Matsui, M.
- Käding, H., precipitation and adsorption of small amounts of substances. VI. Inclusion of small amounts of lead in alkali halides, A., 20.
- and Riehl, N., compounds of the inert gases, A., 776.
- See also Erbacher, O.
- Kähler, H., and Riedel, R., effect of liver extracts on blood-sugar, A., 540.
- Källström, E., bromometric determination of sympatol, B., 524.
- Käsler, R. See Schmalfuss, Hans.
- Kaffer, H., motor-driving spirits, (P.), B., 996.
- Kafowi, J. See Sachs, B.
- Kafuku, K., Oyamada, T., and Nishi, M., new diterpene,  $\gamma$ -camphorene, A., 718.
- Kagan, I., rapid cooking of sulphite cellulose, B., 663.
- Kagan, M. Y., and Kamuishan, N., m.p. of mixtures of potassium nitrate and sodium nitrite, A., 228.
- and Podurovskaja, O. M., catalytic dehydrogenation of ethyl alcohol, A., 235.
- Kagan, M. Y., Rosinskaja, I. M., and Tschernitzov, S. M., successive reactions on the surface of a single catalyst. II. Hydration of ethyl ether, and its subsequent conversion into acetone, A., 1252.
- and Shneerson, A. L., oxidation of ethyl alcohol to acetaldehyde, A., 255.
- and Sobolev, I. A., preparation of ethyl acetate from acetaldehyde, A., 806.
- Kagawa, I. See Atsuki, K.
- Kagawa, K., influence of iodine, and its mode of action, in experimental adrenalectomy arteriosclerosis. I. and II., A., 1069.
- Kageyama, K. See Murata, M.
- Kagiya, S., differences of oxidation and reduction properties of tissues with sex. IV. Fowl embryonic tissue, A., 527.
- Kahane, E., apparatus for study of destruction of organic matter, A., 408. Potassium perchlorate, A., 1024. Uranyl magnesium sodium acetate, A., 1024. Hydrates of sodium *p*-aminophenylarsinate, A., 1313.
- and Dumont, (Mlle.) M. R., determination of sodium in biological material, A., 330.
- and Kahane, M., determination of silica in tissues, A., 1023.
- See also Du Noyer, M. R., Fabre, R., and Lematte, L.
- Kahane, M. See Kahane, E.
- Kahl, L. See Rütgerswerke A.-G.
- Kahl, W. See Dziewoński, K.
- Kahlenberg, L., relationship between electrical potentials and chemical reactivity, A., 11.
- See also Downes, A. W., and Huntzicker, H. N.
- Kahler, H. See Voegtlin, C.
- Kahler, W. H. See Kraus, C. A.
- Kahlert, O. See Felix, K.
- Kahlson, G., potential toxicity. I., A., 184. Detection of choline and acetylcholine, A., 135. Intestinal wall as site of formation of choline and its importance for intestinal movement, A., 1335.
- See also Haag, H.
- Kahn, J. See Ottenburg, R., and Sobotka, H.
- Kaho, H., behaviour of plant cells towards heavy-metal salts, A., 653.
- Kahovec, L. See Späth, E.
- Kailan, A., and Friedmann, N. H., velocities of esterification of alcohols in formic acid. II., A., 1124.
- and Stüber, O., velocity of catalysed hydrogenations. III., A., 471.
- Kain, W., improvement in solvent refining of lubricating oils by the Edeleanu process, B., 691.
- Kaischev, R., and Krastanov, L., ratio of molecular heat of vaporisation to molecular surface energy for crystals and liquids, A., 1242.
- Kaiser, C., Höppler viscosimeter, B., 944.
- Kaiser, H., toxicological detection of barbituric acid derivatives; vacuum micro-sublimation, A., 310.
- and Wetzel, E., determination of alcohol in blood by Widmark's method, A., 1198.
- See also Zintl, E.
- Kaiser, H. E., and Hercules Powder Co., percussion cap, (P.), B., 125.

- Kaiser, *H. F.*, and Barrett, *C. S.*, lattice parameters of solid solutions of silicon in copper, A., 219.  
See also Barrett, *C. S.*
- Kaiser, *P.* See Dieterle, *H.*
- Kaiser, *W.*, transplantation of the seminal vesicle in the anterior chamber of the eye, A., 323.
- Kaiser-Wilhelm-Institut für Eisenforschung. See Luyken, *W.*
- Kaisser, *K.*, devices [screens] for electrolytic separation of substances from liquid, (P.), B., 973.
- Kaiwa, *T.*, basal metabolism in thyroidectomised, bi-laterally adrenalectomised, and castrated rabbits, A., 430. Hyperglycaemic action of  $\beta$ -dimethyltelluronium dichloride, A., 532. Mechanism of peptone hyperglycaemia, A., 860.
- Kaizik, *K.*, electrodeposition of zinc, (P.), B., 715.
- Kalachikov, *A. T.*, biological absorption of mineral nitrogen in soil, B., 560.
- Kalamkar, *R. J.*, statistical examination of yield of mangolds from Barnfield at Rothamsted, B., 564.
- Kalb, *G.*, determination of crystallographic constants, A., 12. Vicinal faces and the work of Parker, A., 1003.
- Kalberer, *O. E.* See Widmer, *A.*
- Kalbfleisch, *L.*, experimental apiol poisoning in animals, A., 1078.
- Kalbfleisch Corporation. See Harding, *W. H.*
- Kaldunee, *O.* See Müller, *Felix.*
- Kale, *N. P.* See Sahasrabudde, *D. L.*
- Kalendarov, *G. S.*, spectral resolution of mitogenic radiation of the stimulated nerve, A., 1201.
- Kali-Chemie Akt.-Ges., potassium carbonate, (P.), B., 463. Potassium bicarbonate and carbonate, (P.), B., 624.  
See also Crotogino, *F.*
- Kali-Forschungs-Anstalt G.m.b.H., organic bromine compounds [ethylene dibromide, acetylene tetrabromide], (P.), B., 11. Recovery of bromine, (P.), B., 18. Utilisation of nitrogen from nitrosyl chloride, (P.), B., 61. Converting potassium chloride, or crude salts and mixtures containing it, into storable and readily distributable form, (P.), B., 227.  
and Kaselitz, *O.*, mono- and diammonium phosphate or mixed fertilisers containing same in granular form, (P.), B., 464. Granular fertilisers, (P.), B., 567. Granular mixed fertilisers containing ammonium phosphates, (P.), B., 567.
- Kalichevsky, *V. A.*, and Ramsay, *J. W.*, lubricating oils in contact with clays; effect of time at elevated temperatures, B., 995.  
See also Story, *B. W.*
- Kalif Corporation. See Pike, *R. D.*
- Kalinnikova, *M. N.* See Obrastzov, *G. D.*
- Kalinor, *C.*, and Schmidt, *Ern.*, structure of sulphonated oils, B., 718.
- Kalinovskaja, *N. A.* See Rebinder, *P. A.*
- Kalinowska, (*Mlle.*) *E.*, line fluorescence of cadmium vapour, A., 200.
- Kalinowski, *K.*, influence of methyl, ethyl, and phenyl radicals on association of salicylic acid derivatives, A., 1118.  
See also Hrynakowski, *C.*
- Kalitzki, *K. P.*, salt deposit on Chelekeni Island, A., 589.
- Kallam, *F. L.*, condenser control apparatus [for hydrocarbon vapours], (P.), B., 854.
- Kalle & Co., Akt.-Ges., [device for] manufacturing seamless casings from regenerated cellulose, (P.), B., 15. Light-sensitive layers, (P.), B., 173. Light-sensitive films [for multi-colour pictures], (P.), B., 685. Photographic pictures, (P.), B., 814, 845. Artificial sausage casings, (P.), B., 911. Preparation of diazo-types, (P.), B., 1037. Preparations of starch-degrading enzymes, (P.), B., 1078.
- Kalling, *B. M. S.* See Johnson, *A. A.*
- Kallmann, *H.*, arrangement for producing rapid ions, A., 882.  
and Lasarev, *W.*, isotopes (oxygen, neon, and chlorine), A., 333.  
and Rostagni, *A.*, liberation of electrons from surfaces by ions and atoms, A., 1222.  
and Schränker, *W.*, detonation of explosives by ionic and electronic collision, A., 788.  
and Willstätter, *M.*, theory of structure of colloidal systems, A., 224.
- Kálló, *A.*, lipase content of thoracic duct lymph, A., 737.
- Kallós, *P.*, and Hoffmann, *Günter.*, production and properties of  $\beta$ -tuberculin, A., 1334.
- Kalman, (*Mlle.*) *C.* See Thomas, *P.*
- Kalninš, *A.*, aerobic cellulose-decomposing bacteria in soil, A., 640.
- Kalocsay, *P. von.* See Kremenezky, *J.*
- Kaltman, *H.* See Naegeli, *C.*
- Kaltscheva, *D.*, two vegetable flours, B., 329.
- Kaltschmitt, *H.* See Schönberg, *A.*
- Kalunite Co., and Fleischer, *A.*, elimination of iron from sulphate solutions [containing alums], (P.), B., 913.  
and Sanders, *L. D.*, alumina, (P.), B., 914.  
and Steuart, *K.*, aluminium sulphate, (P.), B., 914. Basic alum, (P.), B., 914.
- Kalushski, *A. A.*, [soil] solubility and mobility of phosphoric acid of basic slag, B., 562.
- Kamada, *K.*, callus-phosphatase and its participation in healing of fracture, A., 303.
- Kamamoto, *K.*, and Ootsubo, *Y.*, Japanese acid clay. XI. Sorption of gases by Japanese acid clay, A., 774.
- Kambara, *S.*, and Matsui, *M.*, constant-temperature apparatus. VI. and VII., A., 800.  
See also Matsui, *M.*
- Kambe, *K.* See Yabuta, *T.*
- Kamblí, *E.* See Rupe, *H.*
- Kamecki, *J.* See Jezewski, *M.*
- Kamenetzki, *S. A.*, application of the centrifuge to classification of suspensions according to their size, A., 1115.
- Kamerling, *S. E.*, and Smyth, *C. P.*, possibility of dipole rotation in crystalline solids, A., 339.
- Kameyama, *N.*, and Iida, *H.*, prevention of injurious effect of antimony in electrodeposition of Zn and Cu, B., 631.
- Kurosawa, *S.*, and Miki, *Takeo.*, production of sodium carbamate from sodium nitrate in liquid ammonia, B., 623.  
and Makishima, *S.*, determination of small amounts of bismuth in presence of large amounts of copper and chloride, A., 800. Electrolytic refining of copper using complex salt of cuprous chloride. XI. Behaviour of bismuth, B., 750.
- Kameyama, *N.*, and Munakata, *L.*, ammonia-soda process under high pressure of carbon dioxide, B., 188.  
and Takahashi, *Kenkich.*, electrolytic oxidation or reduction with alternating current, A., 791.
- Kamienobrodzki, *W.*, effect of filtration on results of examination of distillery mash, B., 203. Acidity of fermenting distillery mash, B., 203.
- Kamiński, *B.*, Inglot, *J.*, and Kamiński, *E.*, spectrum analysis, A., 477.  
and Karczewski, *K.*, flotation [of ores], B., 392.
- Kamiński, *E.* See Kamiński, *B.*
- Kaminer, *B. B.*, and Gurvitsch, *V. L.*, distillation of Baku fuel oils in a laboratory pipe still, B., 210.
- Kamishima, *Y.*, zirconium high-speed steel, (P.), B., 311. Alloy containing zirconium and tungsten for the principal constituent, (P.), B., 311.
- Kamizawa, *O.* See Hirohata, *R.*
- Kamm, *E. D.* See Imperial Chem. Industries.
- Kammerer, *V.*, explosions of oil vapour in compressed-air plants, B., 655.
- Kammermeyer, *K.*, and Peck, *A. B.*, high-temperature preparation and optical properties of sodium aluminate, B., 864.
- Kamoshita, *Y.*, cause of unproductivity in a certain volcanic calcareous soil for paddy rice, B., 244.
- Kamp, *J. van de.* See Mosettig, *E.*
- Kamp, *P.*, zinc white [oxide] in white enamel preparation, B., 238. Micrography in zinc white, B., 398.
- Kamuishan, *N.* See Kagan, *M. Y.*
- Kanagy, *J. R.* See Wallace, *E. L.*
- Kanai, *I.*, oxidative metabolism in hunger and on an insufficient diet; influence of replacement of food protein by amino-acids on intermediate metabolism, A., 184. Effect of muscular work on oxidations in the body, A., 629. Effect of alcohol on [biological] oxidation, A., 860.  
See also Bickel, *A.*
- Kanamaru, *K.*, and Tsuchida, *T.*, colloid chemical studies on rosin sizing. I. and II., A., 567.
- Kanaoka, *Y.* See Asahina, *Y.*
- Kanazawa, *S.* See Endō, *H.*
- Kanda, *Z.* See Hayashi, *I.*
- Kane, *J. H.* See Currie, *J. N.*
- Kane, *T.* See Strange, *E. H.*
- Kaneko, *H.*, behaviour of aqueous solution of domestic [silk] cocoons. VIII. Coagulation. IX. Swelling of sericin. X. Freezing of sericin solution, A., 463; B., 663.  
and Yamamoto, *K.*, pupa oil emulsion. I. Properties of dispersed system obtained by boiling dried pupa with water, A., 1115.
- Kaneko, *S.*, and Nemoto, *C.*, formation of oxide film on aluminium and its colouring, B., 471.
- Kanevskaja, *S. J.*, and Fedorova, *A. M.*, determination of coumarin and melilotic acid in *Melilotis officinalis*, A., 1215.
- Kanga, *D. D.* See Shah, *M. S.*
- Kangro, *W.*, and Jahn, *R.*, action of chlorine on metal oxides, A., 357.  
and Jeep, *E.*, characteristics of the carbon arc in chlorine, A., 439.
- Kanitkar, *N. V.* See Sahasrabudde, *D. L.*
- Kanitz, *H. R.*, semi-micro-method for determination of carbon in biological fluids, A., 546.

- Kann, S. See Fleischmann, W.  
 Kannel, C., tanning leather, (P.), B., 758.  
 Kanner, O., direct determination of free cholesterol in blood without precipitation, A., 410.  
 and Chancogne, M., comparison of methods of Kanner and Grigaut for determination of free cholesterol of serum, A., 1181.  
 Kanning, E. W. See Brown, O. W.  
 Kannuliuk, W. G., thermal and electrical conductivities of several metals between  $-183^{\circ}$  and  $100^{\circ}$ , A., 893.  
 and Martin, L. H., conduction of heat in powders, B., 895.  
 Kantor, L. See Resh, M.  
 Kantor, T. See Schwarz, Karl.  
 Kantorowicz, H., Köhler, Arnold, and Fettsäure- & Glycerin-Fabr. G.m.b.H., sulphonated products [olcines], (P.), B., 1066.  
 Kantorowicz, J., moisture-resistant cellulose products, (P.), B., 544.  
 Kantzer, photochemical properties of chromyl chloride, A., 791.  
 Kapadia, B. M. See Meldrum, A. N.  
 Kapadia, M. R. See Prasad, M.  
 Kapeller-Adler, R., determination of histidine in biological fluids, A., 1094.  
 and Lauda, E., ether-soluble urinary acids with varying nutrition, A., 525.  
 Kapfenberger, W. See Hönigsmid, O.  
 Kapitel, W. See Wieland, H.  
 Kapitza, P. L., reflexion of electrons from standing light waves, A., 549.  
 Kaplan, B. B., and Reger, D. B., purification of [mine] water, (P.), B., 654.  
 Kaplan, G. A., and Joffe, O. G., economics of production of half-stuff by the Sudakov process, B., 222.  
 Kaplan, J., auroral spectrum, A., 205.  
 New source of active nitrogen, A., 205.  
 Metastable molecules and active nitrogen, A., 205.  
 New criterion for predissociation, A., 439.  
 Predissociation in nitrogen and excitation of the green auroral line, A., 439.  
 Kaplan, M. A., preparation of hæmatoporphyrin, A., 1064.  
 Kaplan, S., blood in normal pregnancy and eclamptogenic toxæmia, A., 86.  
 Kaplunov, Y. N., testing "gratan," used in preservation of fish skins, B., 320.  
 Kapp, L. C., effect of chemicals on rice production and their effect on rice soil, B., 243.  
 Rice fertilisation, B., 1073.  
 Kapp, M., oxidation of hydrogen sulphide solutions by air, B., 306.  
 Kappanna, A. N. See Patwardhan, H. W.  
 Kappeller, G., dried potato preparations, B., 1082.  
 and Reidemeister, W., detection of dry plums in plum-pulp mixtures, B., 331.  
 Kappelmeier, C. P. A., chemical processes in stand-oil formation, B., 675.  
 Kappen, H., agricultural utility of blast-furnace slag, B., 598.  
 Kappes, W. R., and Aluminum Co. of America, [light] structural material, (P.), B., 508.  
 Kaptein, A. J. G., isotopes, A., 1223.  
 Kapur, M. L. See Hag, M. A.  
 Kapustinski, A. F., general formula for lattice energy of crystals of any structure, A., 1001.  
 and Veselovski, B., crystal lattice energies and the Born-Haber cycle, A., 1001.  
 See also Britzke, E. F.  
 Kar Kadinovski, T. A. See Uglov, V. A.  
 Kar, S. C., group theory and valency states, A., 450.  
 Karagunis, G., dispersion of salt solutions; relation between dispersion and osmotic coefficients, A., 123.  
 and Drikos, G., stereochemistry of the free triarylmethyl radical; total asymmetric synthesis, A., 1041.  
 Karakoz, A. See Tauber, J.  
 Karantassis, T., double decomposition between germanium halides, and halides of quadri-, ter-, and bi-valent elements, A., 794.  
 and Capatos, L., germanium tetraiodide and its action on hexamethylenetetramine and caffeine, A., 383.  
 Karaoglanov, Z., and Sagortschev, B., mechanism of precipitation processes. XI. Precipitation of  $PbCl_2$  or  $Pb(CNS)_2$  with  $Na_2S$  and of  $PbCl_2$  or  $PbBr_2$  with  $NaOH$ . XII. Processes in which cadmium salts participate. XIII. Processes in which  $HgCl_2$  participates, A., 475, 564, 917.  
 Karaseva, A., and Yakobi, F., refining of Grozni wax-free crude-oil products with clay, B., 691.  
 See also Obryadchikov, S. N.  
 Karatygyn, W. M., and Hefter, A. I., changes in alkali reserve and sugar content of bile as affected by different physiological agents. III. Effect of histamine, adrenalin, and insulin, A., 737.  
 Karczag, L., catalytic oxidising action of body fluids on tissue metabolism, A., 629.  
 and Hanák, M., effect of body-fluids on fermentation, A., 637.  
 Karczewski, K. See Kamiński, B.  
 Karell, A. See Bodnár, J.  
 Kargin, V. A., and Usanovitch, M., potentiometric determination of free alkali hydroxide in phenoxides, B., 215.  
 Karjala, S. A., and McElvain, S. M., 2-methylpiperidinopropyl thiol- and thionbenzoates, A., 1057.  
 Karl, A., analysis of radioactive minerals, A., 246.  
 Metallic tungstates, A., 685.  
 Karlson, P., arc spectrum of cerium, A., 1096.  
 Karnahl, H., influence of inorganic iodine compounds on presence and activity of important bacteria in soil, B., 516.  
 Karns, G. M. See Beaumont, A. B.  
 Karpov, B. G., analysis of platinum minerals. VII. Determination of rhodium, B., 232.  
 and Federova, A. N., analysis of platinum minerals. VI. Separation of iridium from platinum, B., 232.  
 Karraker, P. E., comparative effect of chloride and sulphate of potash on composition and quality of white Burley tobacco, B., 680.  
 Karrer, P., carotenoids, A., 431.  
 and Benz, F., plant colouring matters. L. Conversion of perhydrocrocin into perhydronorbixin, A., 594.  
 Benz, F., Morf, R., Raudnitz, H., Stoll, M., and Takahashi, T., plant colouring matters. XLVI. Constitution of crocetin and bixin; synthesis of perhydronorbixin, A., 52.  
 Benz, F., and Stoll, M., plant colouring matters. XLIX. Synthesis of perhydrocrocin, A., 594.  
 and De Meuron, G., plant colouring matters. XLVIII. Violanin, A., 594.  
 Euler, H. von, and Hellström, H., vitamin-C, A., 756.  
 Karrer, P., Euler, H. von, Hellström, H., and Klusmann, E., oxidation of  $\beta$ -carotene, A., 703.  
 and Harloff, J. C.,  $\beta$ -4-glucosido- $\beta$ -glucosan and 4-galactosido- $\beta$ -glucosan, A., 1146.  
 and Hirohata, R., oxidation of  $\alpha\beta$ -glycols by lead tetra-acetate and periodic acid, A., 1140.  
 and Itchner, V., reaction products from hippuryl chloride, A., 59.  
 and Morf, R., synthesis of perhydrovitamin-A; purification of vitamin-A preparations, A., 820.  
 Morf, R., Salomon, H., and Schöpp, K., antiscorbutic vitamin (vitamin-C, ascorbic acid), A., 490.  
 Morf, R., and Schöpp, K., synthesis of perhydrovitamin-A, A., 605.  
 Morf, R., and Walker, O., constitution of  $\alpha$ -carotene, A., 1040.  
 Plant colouring matters. LII. Constitution of  $\alpha$ -carotene, A., 1150.  
 and Salomon, H., formula of crocin, A., 832.  
 Salomon, H., and Schöpp, K., constitution of dehydroascorbic acid, A., 698.  
 and Schwarz, Kurt, resinous coat of *Sarcocaulon rigidum*, Schinz, A., 329.  
 Schwarzenbach, G., and Schöpp, K., vitamin-C. IV, A., 490.  
 and Takahashi, T., plant colouring matters. XLVII. Isomerism of the bixins; theory of formation of carotenoid pigments in plants, A., 594.  
 and Walker, O., plant colouring matters. LI. Pure  $\alpha$ -carotene, A., 805.  
 Walker, O., Schöpp, K., and Morf, R., isomeric forms of carotene and the further purification of vitamin-A, A., 805.  
 and Zehender, F., vitamin-C (ascorbic acid) as an activator of catheptic enzymes. I, A., 873.  
 Zubrys, A., and Morf, R., plant colouring matters. LIII. Xanthophyll and violaxanthin, A., 1150.  
 Karshan, M. See Krasnow, F.  
 Karskaja, T. N. See Roshdestvenski, M. S.  
 Karski, N. N., preparing bright stocks from residues with 4.9–5.4  $E^{100}$  viscosities from Dossor and Makat crude oil mixtures, B., 691.  
 Karssen, A., improved Soxhlet apparatus, A., 248.  
 Karsten, E., chlorinated rubber, B., 357.  
 Oil-resistant rubber, B., 557.  
 Karsten, P., interference by ferric ion in colorimetric determination of copper and lead in potable water, B., 734.  
 Determination of copper in ferrum reductum and pulveratum, B., 891.  
 Karström, H. See Virtanen, A. I.  
 Karstrom, C. E., and Safety Mining Co., blasting method and apparatus, (P.), B., 814.  
 Karve, D. D., violin, an open-chain analogue of murexide, A., 151.  
 Kasai, S. See Adachi, K.  
 Kasarnovski, I. See Sisskind, B.  
 Kasatkina, I. A. See Gorbatschev, S. V.  
 Kashtanov, L. I., uranium tetrachloride, tungsten hexachloride, and molybdenum pentachloride in organic syntheses, A., 825.  
 Kaselitz, O. See Kali-Forschungs-Anstalt G.m.b.H.  
 Kashiwamura, O., blood-coagulation. I. Inhibitory substance from kidney, A., 522.



- Kasjanov, V. See Ivančenko, D.  
 Kasjanova, N. See Tiutiunnikov, B.  
 Kasper, A., treatment of coffee beans, (P.), B., 938.  
 Kassel, L. S., thermodynamic functions of hydrocarbon gases from spectroscopic data, A., 561.  
 See also Eyring, H.  
 Kassler, I., determination of sulphur in steel and ferro-alloys, B., 750.  
 Kassler, R., reactivity of coke, B., 946.  
 See also Simek, B. G., and Tropsch, H.  
 Kassner, E. E. W., ultra-short-wave radiation, suitable for medical and other purposes, (P.), B., 73.  
 Kassner, L., precision measurements with high dispersion of Stark effect in hydrogen, A., 439.  
 Kast, W., deviations from the sum rule in the spectrum of strontium, A., 200, 332. Comparison of X-ray patterns of liquid crystals and normal liquid phase of the same substance, A., 1236.  
 and Würstlin, F., Raman effect in X-ray region. II., A., 553.  
 See also Ornstein, L. S.  
 Kastler, A., polarisation of fluorescence of mercury vapour, A., 992. Conservation of kinetic moment and the rules of polarisation in spectroscopy; application to the diffusion of light and to fluorescence, A., 999.  
 Katagiri, H., and Kitahara, K., formation of kojic acid by *Aspergillus oryzae*, A., 638.  
 Kataoka, E., and Takahashi, I., embryo-chemistry of amphibia. VI. Fatty substances during incubation of salamander eggs, A., 966.  
 and Tsunoo, S., embryo-chemistry of amphibia. V. Carbohydrate metabolism during incubation of salamander eggs, A., 966.  
 See also Fujiwara, H.  
 Kathner, A. T., annealing or heat-treating furnace, (P.), B., 711.  
 Katô, J., manufacture of casein and lactose from milk by electrodialysis, B., 762.  
 Kato, T., influence of titanium oxide on sintering of magnetic sand in Japan, B., 59.  
 Kato, Tsunetaro, thermal decomposition of petroleum at high pressure, B., 738.  
 Kato, Y., hydrogen overvoltage of lead and lead-antimony alloys. I. and II., A., 1016.  
 and Fujino, S., decomposition of phosphates. I. Treatment of calcium phosphate with chlorine and carbon, B., 747.  
 and Hayami, N., sensitive photovoltaic cell, B., 635.  
 and Ikeno, R., decomposition of chromite. III. Chromic oxide [production], B., 748.  
 and Matsubashi, T., artificial manganese dioxide for production of dry cells of long shelf-life, B., 635, 752.  
 Sugino, K., Koidzumi, K., and Mitsu-shima, E., calcium cyanamide. II. Ammonolysis of dicyanodiamide, B., 748.  
 and Takase, R., lead oxides, A., 795.  
 and Takei, T., metal-oxide magnets, B., 636.  
 Katoh, K., relationship between chemical reaction of fixative solution and basophilic granules in stained tissue, A., 625.  
 Katschinski, N. A., soil structure as a factor in soil fertility, B., 401.  
 Katsume, H. See Kuroko, K.  
 Katsunuma, S., rabbit carcinoma produced by nicotine, A., 627.  
 and Nakamura, Hirozi, iron distribution in earlier stages of growth of soya-bean and chick embryo, A., 1184. Distribution of iron in animal tissues, A., 1184.  
 Katsura, S., Hatakeyama, T., and Tajima, K., micro-determination of phosphatides in blood, A., 294.  
 Katsurai, T., influence of sodium, barium, and aluminium chlorides on the hydrolysis of ferric chloride above 100°, A., 134. Nephelometric studies of coagulation processes caused by acceleration of hydrolysis by heating, A., 1117.  
 Katti, M. C. T. See Modiuddin, M. G.  
 Katz, A. E., cells for electrolytic treatment of fluids, (P.), B., 154.  
 Katz, J. R., laws of swelling, A., 227. Radiographical introduction to the Cellulose Symposium [Delft, May, 1932], A., 350.  
 and Derksen, J. C., what causes the different X-ray spectra of natural starches? A., 14. Physical chemistry of starch and bread-making. XII. Transformation of starch preparations with the potato-starch (B) spectrum into preparations with the wheat-starch (A) spectrum and the reverse, A., 903.  
 and De Rooy, A., X-ray spectrum of fibrin, A., 893. Crystal structure of fibrin, A., 1004.  
 and Hanson, E. A., increased structure in starch grains which checks swelling and is destroyed on making into a paste, B., 166.  
 and Itallie, T. B. van, physical chemistry of starch and bread-making. XIII. Comparative investigation of peptisation of various native starches with much water, A., 1117.  
 and Muschter, F. J. F., effect of ions in lyotropic series on swelling of organic matter. I. Influence of inorganic salts with different anions on the swelling of potato starch. II. Influence of thiocyanate and organic sulphur compounds on the swelling of potato starch, A., 462.  
 Muschter, F. J. F., and Weidinger, A., effect of ions in lyotropic series on swelling of organic matter. III. Effect of organic halogen compounds on swelling of starch. VI. Effect of aromatic compounds containing a hydrophilic group on the swelling of starch. VII. Effect of normal aliphatic and alicyclic compounds containing a hydrophilic group on swelling of starch. VIII. Influence of nitro-compounds on swelling of potato starch. IX. Influence of aliphatic and alicyclic compounds with two or more hydrophilic groups on swelling of potato starch. X. Influence of benzene derivatives with two or more hydrophilic groups on swelling of potato starch, A., 462, 778, 902, 1012.  
 and Weidinger, A., effect of ions in lyotropic series on swelling of organic matter. IV. Effect of inorganic salts, thiocyanates, and organic sulphur compounds on shrinking of collagen. V. Effect of organic halogen compounds containing a hydrophilic group on shrinking of collagen. XI. Influence of substances with two or more hydrophilic groups on the swelling of collagen, A., 462, 1012.  
 Katz, J. R., and Weidinger, A., influence of lyotropic substances on the shrinkage-temperature of collagen, A., 463, 779.  
 and Wienhoven, J. F., influence of lyotropic substances on the mutarotation and gelatinisation of gelatin-water mixtures. I. II. Substances with two hydrophilic groups. III. Substances which retard gelatinisation without influencing mutarotation, A., 226, 567, 779. Effect of lyotropic substances on mutarotation and gelation of gelatin-water mixtures, A., 779.  
 See also Samec, M.  
 Katz, L. N. See Soskin, S.  
 Katzen, I. S., electrochemical reduction at the cathode, and its prevention in the electrolysis of barium chloride without a diaphragm, A., 914.  
 and Sokolov, P. I., electrolytic production of chlorates. I. Platinum anodes. II. Graphite electrodes, B., 505.  
 Katzenhogen, S., and McCann, M. C., blood, cerebrospinal fluid, and [blood-] calcium during the cataleptic state induced by bulbo-capnine; combined effect of bulbo-capnine and some other drugs, A., 311.  
 Katzman, P. A., and Doisy, E. A., preparation of extracts of anterior pituitary-like substances of urine of pregnancy, A., 98.  
 Katznelson. See Fischer, P.  
 Katznelson, M. M. See Tschitschibabin, A. E.  
 Katzoff, S., and Ott, Emil, lattice constants of ferric oxide, A., 1106.  
 Kauert, G., electrical conductivity of flour; relation to ash content, B., 936.  
 Kauffman, M. See Gerritzen, S. C. L.  
 Kauffmann-Gosla, O., and Oerli, S., action of insulin on experimental beriberi and experimental avitaminosis-B, A., 738.  
 Kaufhold, R., Lamezan-Salins, M., Hardtmuthová, A., Hardtmuthová, A., jun., Hardtmuth, F., jun., De Rohan, M. P., Frankensdorf, B. H., and Frankensdorf, J. H., colouring of silver images, (P.), B., 1037.  
 Kaufman, L., hormones determining the secretion of crop "milk" in pigeons, A., 319.  
 Kaufman, S. See Richtmyer, F. K.  
 Kaufmann, A. See Engel, H.  
 Kaufmann, C. See Mühlbock, O.  
 Kaufmann, F., determination of metallic iron, ferrous oxide, and ferric oxide in mixtures, A., 365.  
 Kaufmann, H., paramagnetic Faraday effect with alums, A., 1233.  
 Kaufmann, V., linoleum-like substance, (P.), B., 640. Treatment of artificial caoutchouc [factice] preparatory to mixing and vulcanising with natural caoutchouc, (P.), B., 1069.  
 Kauffheil, L., and Rappaport, F., bile-stimulating action of iodosalicylic acids, A., 178.  
 Kauko, Y., equilibrium constants of first and second stages of dissociation of carbonic acid, A., 227. Mathematical treatment of equilibrium in the system base-carbon dioxide-water in the liquid and gas phases, A., 227. Graphical representation of equilibrium relationships in the system base-carbon dioxide-water in the liquid and gaseous phases, A., 228. Heat of solution of gases, particularly carbon dioxide, A., 230.

- Kauko, Y., determination of carbon dioxide in air, B., 305. Determination of free carbon dioxide in water containing humus, B., 334.
- Kaul, K. N. See Ahluwalia, G. S.
- Kaul, R. See Ghatak, N.
- Kaumagraph Co. See Lawrence, W. S.
- Kautsky, H., De Bruijn, H., Neuwirth, R., and Baumeister, W., energy transformations at surfaces. VII. Photosensitized oxidation as effect of an active, metastable condition of the oxygen molecule, A., 1256.
- Hirsch, A., and Davidshöfer, F., energy transformations at surfaces. VI. Carbon dioxide assimilation. I., A., 101.
- Kauter, C. T., origin of Chile saltpetre, A., 368.
- Kautz, K. M., effect of boric acid in raw milled glazes, B., 19. Simplified method for accurate wet blending of glazes and slips, B., 19. Enamels of standard colours for vitreous china sanitary ware at cone 6, B., 423.
- Kawada, T., aminohydroxy-compounds which show the biuret reaction. IX. Fate of  $\omega$ -aminohydroxy-acids in phloridzin glycosuria and phosphorus poisoning, A., 978.
- Kawada, Y., influence of bile salts on salt excretion in liver-bile. II. Elimination of phosphoric acid through bile acids after administration of glucose, A., 626.
- Kawaguchi, N., silk-fibre sheet, (P.), B., 502.
- Kawaguchi, S., case-hardening of iron and steel, B., 429.
- Kawai, S., conversion of cholic acid into anthropodeoxycholic acid, A., 274.
- Kawai, T., serrated discontinuity on the load-extension diagram and age-hardening of metals and alloys, B., 872.
- Kawakami, K., vitamin-A. I. Absorption spectra of carotenoids. II. Properties of hydrocarotene. III. Relation between hydrocarotene and biosterol, A., 644.
- Kawakami, Y., soap boiling. VI. Separation of nigre from neat soap. VII. Detection of the end-point, B., 754. See also McBain, J. W.
- Kawasaki, K. See Hayashi, Mosuke.
- Kawase, M. See Kotake, Y.
- Kawase, S., and Kihara, Y., mineral constituents of American loess soils, A., 253.
- Kawashima, C. See Kondō, S.
- Kawata, S., structures in the K absorption spectra of Cu and Zn in brass, A., 3.
- Kawata, Z., determination of degree of ripening of viscose, B., 300. Glucose for [viscose] coagulating bath. I. Starch sugar, B., 441. Omission of stretch-drying [of viscose threads], B., 1050.
- Kay, H., and McCulloch, A., constitution of chlorinated coal. V. Solvent extraction and coke formation, B., 337.
- Kay, H. D., phosphoric ester content of red blood-cells and liver in experimental rickets, A., 304. How science can help to improve the nation's food supply; milk and dairy products, B., 762.
- and Guyatt, B. L., experimental rickets as a phosphorus-deficiency disease, A., 526. See also Guyatt, B. L., and Jukes, T. H.
- Kay, J. S. See Barkla, C. G.
- Kay, M. G. See Hatcher, W. H.
- Kay, W. See Kay & Co., Ltd., S.
- Kay, W. B. See Thiele, E. W.
- Kay & Co., Ltd., S., and Kay, W., articles from rubber and rubber-like compositions, (P.), B., 558.
- Kay & Ess Co. See Phillippi, D. M.
- Kaya, S., remanence of single iron crystals, A., 1005.
- Kaya, Shunrichi, appearance of cations in the stomach, A., 524.
- Kaye, A. L. See Yost, D. M.
- Kaye, G. W. C., and Sherratt, G. G., velocity of sound in gases in tubes, A., 894.
- Kayko, C. J. See Browne, T. C.
- Kaylor, H. W. See Nelson, O. A.
- Kayness Corporation. See Scollard, R. L.
- Kayser, F., the two diastereoisomeric  $\alpha\beta\gamma$ -triphenyl-*n*-propyl alcohols; exclusive preparation of each from stilbene and isostilbene oxides, A., 710. See also Tiffeneau, M.
- Kayser, J. F., heat-resisting metals and their use in the ceramic industry, B., 921.
- Kayser, T., inorganic heat carrier for super-temperature heating, B., 815.
- Kazanski, B. A., Balandin, A. A., Tserkovnikov, I. M., Ivanova, K. A., and Staroverova, E. N., preparation of butyl and hexyl alcohols from the by-products of synthesis of divinyl from ethyl alcohol. III., A., 806. See also Zelinski, N. D.
- Kazarjan, L. See Gambarjan, S.
- Kazeef, S. A., liquation "points" in forgings from large ingots, B., 922.
- Kazenmaier, A., Dorn, W., and Bosch A.-G., R., electric condenser, (P.), B., 716.
- Kaziro, K. See Wieland, H.
- Kazmierczak, P. See Turski, J.
- Keach, D. T., synthesis of  $\alpha$ -naphthyl-acetic acid, A., 948. Synthesis of 5- $\alpha$ -naphthyl-5-ethylhydantoin, A., 957. Naphthyl derivatives of barbituric acid, A., 1059. Synthesis of 5- $\alpha$ -naphthyl-5-ethylbarbituric acid, A., 1059.
- Kean, R. H., and Gen. Zeolite Co., liquid [electro-osmotic] purification, (P.), B., 434. [Electro-osmotic] liquid treatment, (P.), B., 475.
- Keane, J. See Nolan, T. J.
- Keane, J. C. See Dawson, L. E.
- Kearns, H. G. H., and Walton, C. L., control of the loganberry and raspberry beetle (*Byturus tomentosus*); experiments with *Pyrethrum* and *Derris* washes and dusts, B., 404. Control of the raspberry beetle (*Byturus tomentosus*, Fabr.) by means of a barium silicofluoride wash, B., 404.
- Keasley, E. P. W., and Roberts, G. L., influence of physical properties of gas-carbon black on its staining power, B., 690.
- Keck, P., Faraday effect in ionised gases for 4-cm. waves, A., 211. and Loeb, L. B., limitation in currents of positive alkali ions of homogeneous velocities, A., 1223.
- Keding, E., determination of sterol contents of cereals and legumes, A., 105.
- Kedrov, O. S., liming to increase productivity of podsols in White Russia, B., 83.
- Keefe, C. E., and Cromwell, E. C., de-watering of sludge by vacuum filtration, B., 253.
- and Kratz, H., interchange of heat during [sewage] sludge digestion, B., 414. Digesting [sewage] sludge at 37°, B., 493.
- Keefe, C. E., Wachter, F. C., and Dorr Co., Inc., sewage-treating apparatus, (P.), B., 766.
- Keefe, H., lecture experiment on liquefaction of gases, A., 140.
- Keefe, W. L., and Wolf Co., attrition mill, (P.), B., 3.
- Keeley, T. C. See Lindemann, F. A.
- Keen, A. W. See Revere Rubber Co.
- Keen, B. A., experimental methods for study of soil cultivation, B., 882.
- Keenan, G. L. See Clark, E. P., Nelson, W. K., and Wilson, J. B.
- Keenan, H. W., ships' compositions, B., 398.
- Keenan, J. A. See Elvehjem, C. A., and Kline, O. L.
- Keenan, J. M., colour-printing plates, (P.), B., 733.
- Keenan, P. C., excitation of helium in the chromosphere, A., 205.
- Keenen, F. G. See Parker, F. W.
- Keeney, D. L., determination of effective strains of *Rhizobium trifolii*, Dangeard, the root-nodule bacteria of clover, under bacteriologically controlled conditions, B., 165.
- Keeser, E., action of different kinds of light on glycolysis, A., 751. Morphine and enzymes. II., A., 978.
- Keesom, (Miss) A. P. See Keesom, W. H.
- Keesom, W. H., jump in the expansion coefficient of liquid helium in passing the  $\lambda$ -point, A., 559. Superconductivity of aluminium, A., 769. Rectification, A., 772; B., 767, 847.
- Dijk, H. van, and Haantjes, J., increase of concentration of  $H^+H^+$  by fractional evaporation and rectification, A., 683.
- and Keesom, (Miss) A. P., anomaly in specific heat of liquid helium, A., 16. Isopycnals of liquid helium, A., 894, 1109.
- and Kok, J. A., change of specific heat of tin when becoming superconducting, A., 15.
- and Lammeren, J. A. van, velocity of sound in nitrogen, A., 15.
- and Lisman, J. H. C., fusion curve of hydrogen up to 610 kg. per sq. cm., A., 16. Melting curve of neon to 200 kg. per sq. cm., A., 769. See also Ifterbeek, A. van.
- Keeton, R. W., and Dickson, D., excretion of nitrogen by obese patients, A., 853.
- Keffer, L. J. P., heats of combustion of salicylic acid and of naphthalene with a view to their possible use as a second calorimetric standard, A., 353.
- and Maiden, A. M., high-precision determination of iodine values by the Wijs method, B., 718.
- Keggin, J. F., structure of the molecule of 12-phosphotungstic acid, A., 768. Structure of the crystals of 12-phosphotungstic acid, A., 1107.
- Kehlen, H. See Pummerer, R.
- Kehoe, R. A., Thamann, F., and Cholak, J., lead absorption and excretion in lead trades, A., 1200. Lead absorption and excretion in relation to the diagnosis of lead poisoning, A., 1200. Normal absorption and excretion of lead. I. In primitive life. II. In modern American life. III. Sources of normal lead absorption. IV. In infants and children, A., 1200.
- Kehren, F. See Krings, W.
- Kehren, M., oleines in the textile industry, B., 637.

- Keighley, G. See Borsook, H.  
 Keightley, W. M. See Hall, G. F.  
 Keighton, W. B., jun. See Pease, R. N.  
 Keil, A. See Hevesy, G. von, and Seith, W.  
 Keil, F. See Skita, A.  
 Keil, O. von, and Ebert, Franz, influence of various alloying elements on formation of graphite in cast iron, B., 708.  
 and Jungwirth, O., strength [of hardened steels] in relation to the original structure, B., 108.  
 Keil, W., preparation and isolation of quaternary bases, A., 493.  
 See also Berg, Richard, and Eichholtz, F.  
 Keilholz, W. See Plücker, W.  
 Keilin, D., combination of methæmoglobin with hydrogen sulphide, A., 1064.  
 Cytochrome and intracellular respiration enzymes, A., 1329.  
 See also Dixon, M.  
 Keilorr, R. D., control of gas composition, B., 496.  
 Keinert, M., system silver-copper-cadmium, A., 119.  
 Keinke, R. See I. G. Farbenind.  
 Keith, P. C., jun., and Gasoline Products Co., asphalt, (P.), B., 851.  
 and Kellogg Co., M. W., rectifying petroleum oils, (P.), B., 139, 500.  
 Keith, T. B., and Miller, R. C., development and functional activities of the albino rat as affected by diets deficient in iron, A., 976.  
 Keith, W. D. See Aluminium, Ltd.  
 Kelland, N. S. See Thompson, W. H.  
 Kellaway, C. H., and Williams, F. Eleanor, hæmolysis by Australian snake venoms. I. and II., A., 977.  
 Keller, A. See Nehring, K.  
 Keller, A. G., micro-determination of blood-urea-nitrogen, A., 174.  
 Keller, B. A., accumulation of salts in plants and salinisation of soils, B., 1025.  
 Keller, C. W., and Amer. Lime & Stone Co., hydrated lime, (P.), B., 546.  
 Keller, E., and Fierz-David, H. E., blue sulphur dyes, A., 834.  
 Keller, F. See Günther-Schulze, A.  
 Keller, H., bacteriological method for determining fertiliser requirement of soils by the soil-plate method, B., 82.  
 See also Berl, E.  
 Keller, J. R. See Stein, M.  
 Keller, K. See Glud, W.  
 Keller, P., and Jahr, M. R., carbonising woollen fabrics, (P.), B., 911.  
 Keller, R., biochemistry of spermatozoa and ova, A., 298. Electro-chemistry of liver and bile, A., 298.  
 Keller, T. P., and Gen. Atlas Carbon Co., carbon black, (P.), B., 1044.  
 Keller, W. See Braun, J. von.  
 Keller, W. H. See Bedford, M. H.  
 Keller-Dorian Colorfilm Corporation, [composite] colour filters for use in colour photography or cinematography, (P.), B., 365.  
 Kellerman, J. See Rimington, C.  
 Kellermann, K., theory of [ore] flotation, B., 551.  
 Kellett, C. E., fat absorption in coeliac disease, A., 180.  
 Kelley, F. C. See Brit. Thomson-Houston Co., and Gen. Electric Co.  
 Kelley, W., and Baylis, W. S., recovering retained oils and fats from filter-press cake and reactivation of the spent cake, (P.), B., 798.  
 Kelley, W. P., nitrogen fertilisation in relation to economic crop production, with special reference to future investigations, B., 402.  
 Kelley, W. V. D., and Du Chrome Film System, Ltd., colour photography, (P.), B., 733. [Photographic] film, plate, etc., (P.), B., 1036.  
 Kellner, B., changes suffered by white rats on poisoning with irradiated ergosterol, A., 1340.  
 Kellogg Co., M. W. See Keith, P. C., jun.  
 Kellogg-Dils, Inc. See Dils, L. A.  
 Kelly, A. R. See Dent, F. J., and Wood, J. W.  
 Kelly, C. D., influence of lactic acid streptococci on chemical changes in Cheddar cheese during ripening, B., 168, 169.  
 See also Pederson, C. S.  
 Kelly, C. I., petroleum as source of paint materials, B., 477.  
 See also Garner, Frederick Horace.  
 Kelly, E. See Parsons, H. T.  
 Kelly, M. See Schoenthal, L.  
 Kelly, M. D. See Dering, H. O.  
 Kelly, M. E., origin and environment of petroleum source sediments, A., 370.  
 Kelly, M. J. See Prescott, C. H., jun.,  
 Kelly, P. J. See Martin, Arthur R.  
 Kelly, T. L., and Howard, H. W., phenacyl and *p*-bromophenacyl esters of mono-substituted benzoic acids, A., 64.  
 and Kleff, P. A., phenacyl and *p*-bromophenacyl esters of dibasic organic acids, A., 52.  
 Kelsall, A. H., and Alexander, O. C., composition for treatment of wood, (P.), B., 829.  
 Kemény, C. See Braun, J. von.  
 Kemet Laboratories, Inc. See Cooper, H. S.  
 Kemikal, Inc. See Mellanoff, I. S.  
 Kemp, A. R., and Bell Telephone Labs., insulating adhesive, (P.), B., 717.  
 Kemp, J. D., and Denison, G. H., dielectric constant of solid hydrogen sulphide, A., 210.  
 Kemp, W., gas analyser, (P.), B., 770.  
 Kemper, H. See Streb, E.  
 Kempf, C. See St. John, J. L.  
 Kempf, L. W. See Archer, R. S.  
 Kempf, N. W. See Ruckelshaus, J. G.  
 Kempf, R., "chalking" [of paint films]. VI. and VII., B., 315, 354.  
 Kempner, W., effect of hydrogen cyanide and carbon monoxide on butyric acid fermentation, A., 317.  
 Kempster, H. L. See Brody, S.  
 Kemula, W., and Mrazek, S., absorption in the ultra-violet of methane, ethane, and *n*-butane, A., 6.  
 and Rygielski, J., spectrographic detection and determination of beryllium in minerals, A., 798.  
 Kenaga, I. A. See Winston, A. W.  
 Kendall, A. R. See Fulmer, E. I.  
 Kendall, C. W., reflection densitometer for photographic papers, B., 124.  
 Kendall, F. E. See Heidelberger, M.  
 Kendall, J., fractionation of isotopes by electrolysis, A., 791.  
 Smith, W. W., and Tait, T., calcium isotope with mass 41 and the radio-active half-period of potassium, A., 658.  
 Kendall, J. D., and Ilford, Ltd., [polymethine] dyes [photographic sensitisers], (P.), B., 697.  
 Kendrick, N. B., burning of brick, (P.), B., 788.  
 Kenety, W. H., and Chemipulp Process, Inc., recovery of relief material [vented from the sulphite-pulp process], (P.), B., 782.  
 See also Stevens, J. W.  
 Kennaway, N. M. See Burrows, H.  
 Kennedy, C. C. See Strosacker, C. J.  
 Kennedy, D. J., treatment of coffee, (P.), B., 490.  
 Kennedy, H. T., measuring [simultaneously] the viscosities of [a series of] liquids, (P.), B., 530.  
 Kennedy, J., *p*-arsanilic acid derivatives of *N*-substituted malonamides, A., 78.  
 Kennedy, P. J. See Moon, V. H.  
 Kennedy, R. E. See Jones, G. W.  
 Kennedy, W. Q., trends of differentiation in basaltic magmas, A., 369.  
 See also Dixon, B. E.  
 Kennelly, M. A. See Wieland, H.  
 Kennelly, V. C. E. See Grimes, M.  
 Kenner, J. See Jones, E. C. S.  
 Kenngott, E., preparation of pure carbazole, B., 101.  
 Kent, A., early chemistry of gold, A., 45.  
 Kent-Jones, D. W., and Herd, C. W., determination of lead in acid calcium phosphate, B., 384.  
 Kenty, C., photo-electric and metastable atom emission of electrons from surfaces in the rare gases, A., 333.  
 Kenworthy, H. A., annealing furnace, (P.), B., 632.  
 Kenyon, C. F., Gobeille, A. A., and Noble, P. W., jun., treatment of ramie and allied fibres, (P.), B., 1003.  
 Kenyon, F. See Hunscher, H. A.  
 Kenyon, J., Phillips, H., and Taylor, F. M. H., Walden inversion reactions of the *p*-toluene-sulphonic and -sulphinic esters of *l*-phenylmethylcarbinol, A., 604.  
 See also Harford, (Miss) M. B., and Hills, H. W. J.  
 Kenyon & Sons, Ltd., W. See Jackson, Archie.  
 Keogh, L. R., and Soda Alumina Chem. Co., alumina, soda, and hydrochloric acid, (P.), B., 146.  
 Keppeler, G., physical and chemical properties of North German petroleum, B., 948. Composition and requirements of domestic glass, B., 1009.  
 and Hoffmann, Heinrich, large-scale carbonisation of peat at different temperatures, B., 48. Nitrogen in peat and in its carbonisation products, B., 291.  
 Kerényi, B. See Schulek, E., and Stasiak, A.  
 Kereszty & Wolf. See under "Chinoin" Fabr. Chem.-Pharm. Produkte A.-G.  
 Kermack, W. O., and Muir, W., attempts to extend the Mannich reaction to derivatives of 4-methylquinoline and 2:4-dinitrotoluene, A., 513.  
 and Spragg, W. T., bromination of 2-nitro-*p*-cresol, A., 155.  
 Kermer, M. J., and Buffalo Foundry & Machine Co., rotary drum dryer, (P.), B., 688. Concentrator, (P.), B., 689.  
 Evaporator, (P.), B., 689.  
 Kern, F. C. See Kern, L.  
 Kern, F. E. See Kern, L.  
 Kern, L., hydrogenation of carbonaceous materials, (P.), B., 213. Phosphate-silicate fertiliser, (P.), B., 324. Composition of "crackle" lacquers, B., 355.

- Kern, L., coking of solid, carbonisable material, (P.), B., 995. Porous siliceous carbon, (P.), B., 996. [Liquid] fuel, (P.), B., 996.
- and Kern, F. C., binder material for coal, coke, etc., (P.), B., 819. Coking of solid, carbonisable material, (P.), B., 995.
- Kern, F. C., and Kern, F. E., reduction of [iron] oxide ores, (P.), B., 310.
- Kern, W., polyoxymethylene films and threads, A., 14.
- See also Staudinger, H.
- Kernot, J. C., and Hills, H. W., specific action of lipase. III. Liver-lipase of various animals, A., 534.
- and Speer, N. E., occurrence of labile phosphorus in fish-muscle, A., 523.
- Kerpel-Fronius, E., relation between sodium chloride and residual nitrogen, A., 410.
- Kerppola, W., and Leikola, E., bilirubin. VIII. Determination of bilirubin in body-fluids; quantitative extraction process, A., 626.
- Kerr, D. G., analysis of mixtures of Schaeffer and F acids; effect of these acids in depressing the phenol-water critical solution temperature, B., 903.
- Kerr, H. W., and King, N. J., colorimetric determination of  $pH$  of soils, B., 803.
- Kerr, M. T. See Chattaway, F. D.
- Kerr, P. F. See Ross, C. S.
- Kerr, P. J., stimulation of reproductive organs of cattle, A., 1086.
- Kerr, T., injection of salts into the protoplasm and vacuoles of the root hairs of *Limnium spongia*, A., 875.
- See also Chambers, R.
- Kerr, W. J. See Althausen, T. L.
- Kerschbaum, F. P. See Waggaman, W. H.
- Kersey, R. W. R. See Hope, E.
- Kerstan, G., determination of sugar in plant extracts (including glucoside sugars), A., 104.
- Kersten, H., and Lange, William, preparing crystals for rotation photographs, A., 250.
- and Maas, J., preparation of collodion filters for X-rays, A., 247. Crystal structure of precipitated copper-tin alloys, A., 454. Calcium target for X-rays, A., 925.
- Kersten, M., temperature coefficient of elastic modulus of ferromagnetic substances, A., 1237.
- Kertess, A. F., wetting-out agents; their advantages and disadvantages, B., 383.
- Kertesz, Z. I., reaction velocity-temperature constant of yeast invertase in supercooled solutions, A., 679. Esterase character of pectase (pectin-demethoxylase), A., 863. Carbohydrate changes in shelled green peas, A., 988.
- and Green, E. L., deterioration in shelled green peas held a few days in storage prior to canning, B., 41.
- Kokoski, F. J., and Clark, A. W., determination of ammoniacal nitrogen in fertilisers without distillation, B., 679.
- Kesans, A., action of nitric acid on hydrogen sulphide and on certain sulphides in presence of hydrazine, A., 684.
- Keschan. See under Kesans.
- Keseling, J. See Büniger, H.
- Kesler, C. C., and Pine Inst. of America, Inc., [rosin] varnish, (P.), B., 928.
- Kessler, J. J., and Apple Electrical Manufg. Co., phenol-aldehyde condensation products, (P.), B., 756.
- Kessler, P. See Spengler, O.
- Kester, E. B., extraction of phenols from caustic [soda] solutions. II., B., 997.
- Kester Solder Co. See Barber, C. L., and Ripley, P. C.
- Kesting, W., constitution of reaction products of benzo- and naphtho-quinones with compounds containing a methylene group and two adjacent negative groups, A., 1299.
- Ketchbaw, T. D. See Scollard, R. L.
- Ketelaar, H. See Stahel, E.
- Ketelaar, J. A. A., crystal structure of lead fluoride, A., 215. Crystal structure of aluminium fluoride, A., 450.
- Keulegan, G. H., and Houseman, M. R., temperature coefficient of the moduli of metals and alloys used as elastic elements, B., 631.
- Keuning, K. J. See Backer, H. J.
- Keussler, O. von, preparation of absolute alcohol by lime under pressure, B., 10.
- Keussler, V. von, spectrum of the  $A^{++}$  ion, A III, A., 879. Spectrum of doubly-ionised neon in the extreme ultraviolet, A., 991.
- Keutmann, E. H., and McCann, W. S., dietary protein in hemorrhagic Bright's disease. I. Effects on course of disease with special reference to haematuria and renal function, A., 301.
- Key, A., Etheridge, W., and Eastwood, A. H., 2nd rept. of the [Gas-]Liquor Effluents and Ammonia Sub-Committee [of the Institution of Gas Engineers], B., 134.
- See also Inst. of Gas Engineers.
- Key, J. See Ornstein, L. S.
- Key, K. M., determination of vitamin-C in diploid and tetraploid tomatoes, A., 646.
- and Morgan, B. G. E., determination of vitamin-C value of ascorbic acid, A., 1091.
- See also Coward, K. H.
- Keyes, D. B., value of determination of free energy change for organic compounds, A., 571. Liquid-vapour composition curves of acetic acid and water at sub-atmospheric pressures, A., 669.
- See also Faith, W. L.
- Keyes, F. G., and Frigidaire Corp., gas- or liquid-storing material, (P.), B., 131.
- Keynenen, G., preservation of milk samples for analysis; effect of preservatives on the determination of fat, B., 762.
- Keys, A., mechanism of adaptation to varying salinity in the common eel; osmotic regulation in fishes, A., 420.
- Keyssner, E., and Mengdehl, H., mixed fertiliser, (P.), B., 279.
- See also Klein, Gustav.
- Keyston, J. E., spectra emitted by high-frequency and direct-current discharges in helium, A., 655. Intensities of the spectra emitted by high-frequency discharges in helium, A., 1095.
- See also McCallum, S. P.
- Keystone Steel & Wire Co. See Herman, J. L.
- Keyworth, C. M., silk dyeing, B., 862.
- Kezer, A. See Hoekensmith, R. D., and Stewart, Laura C.
- Khaliziev, A. A., electroosmotic method for determining the charge on soil particles, B., 81. Conductivity method in agrochemistry, B., 321.
- Khan, A. A. H. See Samuel, R.
- Khan, M. J. See Samuel, R.
- Kharasch, M. S., purifying insulin, (P.), B., 572. Stabilised bactericides, (P.), B., 652.
- and Mayo, F. R., peroxide effect in the addition of reagents to unsaturated compounds. I. Addition of hydrogen bromide to allyl bromide, A., 805.
- Mayo, F. R., and McNab, M. C., peroxide effect in the addition of reagents to unsaturated compounds. II. Addition of hydrogen bromide to vinyl bromide. III. Addition of hydrogen bromide to propylene, A., 805.
- See also Du Pont de Nemours & Co., E. I.
- Khayat, G. B. See Turner, K. B.
- Khazanov, S. I., and Strunnikov, N. A., reworking of straw by Sudakov's method, B., 66.
- Kheifetz, Y. M., dissolving carnallite through a well, B., 304.
- Khelemski, M. Z., electrometric determination of [soluble] ash in sugar-beet products, B., 441.
- and Koshevcrova, E. P., colloids of sugar beets during prolonged storage and manufacture, B., 324.
- See also Mintz, I. B.
- Khoi, T. T., volumetric determination of phosphoric acid and of potassium by use of a new method of washing, A., 687. Determination of assimilable potash in Indo-Chinese soils, B., 839, 1072.
- Khokhryakov, V. A., characteristic bleaching properties of moulding sands and other earths, B., 655.
- Kholevo, N. A., and Eitington, I. I., nitration of xylene with dilute acid in presence of mercury, A., 267.
- Khour, J., detection of  $\beta$ -hydroxybutyric acid in urine and other physiological liquids, A., 413. Distinction between raisin and natural wines, B., 247.
- Khouvine, (Mme.) Y., synthesis of cellulose by *Acetobacter xylinum* from mannitol and sorbitol, A., 640.
- and Nitzberg, G., identification and biochemical oxidation of  $\alpha$ -glucoheptulitol, A., 373.
- See also Aubel, Eugene.
- Khviyuzov, P. See Nepenin, N.
- Ki, W., nitrogen metabolism after blood transfusion, A., 631.
- Kiaer, H. S., mortarud circulation system for sulphite[-pulp] digesters, B., 342.
- Kichline, F. O. See Little, J. E.
- Kick, C. H., Bethke, R. M., and Edgington, B. H., effect of fluorine on nutrition of swine, with special reference to bone and tooth composition, A., 1078.
- See also Bethke, R. M.
- Kida, Y., solubility of iron and aluminium phosphates [as fertilisers] as influenced by alkalis, B., 243.
- Kidd, F., and West, C., gas storage of fruit. III. Lanes Prince Albert apples, B., 683.
- Kidd, H. V. See Ingold, C. K.
- Kidd, R. L., and Wall, W. A., effect of particle size on flotation of sphalerite, B., 1008.
- Kidder, W. V., lubricating system and products, (P.), B., 616, 661.
- Kido, I. See Sakurada, I.

- Kido, *K.*, magnetic susceptibility of binary liquid mixtures, A., 19. Diamagnetic susceptibility of inorganic compounds. III. Oxyacid salts and chlorides, A., 340.
- Kieferle, *F.*, and Eisenreich, *L.*, pasteurisation of milk. I. II. Nitrogen-containing constituents and susceptibility to rennet action of milk under influence of various methods of heating, particularly the "flash" treatment, B., 730, 936.
- Kiehl, *S. J.*, and Hardt, *H. B.*, dissociation pressures of magnesium ammonium phosphato hexahydrate and related substances. VII., A., 352. Ignition of magnesium ammonium phosphate. VIII., A., 1133.
- Kielczewski, *J.* See Barcikowski, *J.*
- Kiemstedt, *H.*, rapid photochemical detection of iron carbonyl in fuels and addenda, B., 48. Testing fuels, solvents, etc., for corrosive sulphur by means of copper; modified method for a qualitative test for corrosive sulphur and for determination thereof, B., 819.
- Kienle, *R. H.*, and Ferguson, *C. S.*, alkyd resins in industry, B., 114.  
and Schlingman, *P. F.*, flexible alkyd resins, B., 977.  
See also Brit. Thomson-Houston Co., and Gen. Electric Co.
- Kientzle, *P.* See Battagay, *M.*
- Kienzl, *H.*, recovery of lyes in the soda-cellulose process by the Wagner procedure, B., 343.
- Kiesel, *A.*, and Znamenskaja, *M.*, structural chemistry of proteins. I. Ring closure and increase in oxygen content on methoxylation of glycimin, A., 292.
- Kiesel, *M.*, action of X-rays on cholesterol metabolism and counteraction by administration of lipins *per os*, A., 861.
- Kiess, *C. C.*, arc spectrum of chlorine, A., 879.  
and Kiess, *H. K.*, preliminary list of terms for the arc spectrum of tantalum, A., 1096.
- Kiess, *H. K.* See Kiess, *C. C.*
- Kiessing, *H.* See Glocker, *R.*
- Kiessling, *L. E.*, *Aspergillus* method for determining potash requirement of soils, B., 83.
- Kiessling, *W.* See Meyerhof, *O.*
- Kifer, *H. B.* See Munsell, *H. E.*
- Kihara, *Y.* See Kawase, *S.*
- Kijak, *E.*, carbonate-weathering of the gabbro of Neurode, Silesia, A., 1029.
- Kijner, *N.*, 2-methyldione, A., 833. Compound of methylenedihydrofuran with benzoquinone, A., 834.
- Kiketz, *V. A.* See Plotnikov, *V. A.*
- Kikoin, *I.*, and Noskov, *M.*, new type of photo-electric effect in cuprous oxide in a magnetic field, A., 662.
- Kikuchl, *R.*, thermal and electrical conductivities of magnesium alloys, A., 118. Thermal and electrical conductivity of magnesium alloys and their behaviour towards the Wiedemann-Franz law, A., 344.
- Kikuchi, *S.*, and Nakagawa, *S.*, reflexion of cathode rays at a single-crystal face, A., 767. Anomalous reflexion of high-speed electrons at a single-crystal face, A., 1097.
- Kikuta, *T.*, and Tobata Imono Kabushiki Kaisha, strong black-heart malleable cast iron, (P.), B., 711.
- Kikuzawa, *T.*, antirachitic action of  $\beta$ -cholic acid, A., 1212.
- Kilchhofer, *G.*, apparatus for vaporisation electrically of liquids, (P.), B., 113.
- Kilduffe, *R. A.*, stability of glycerinated haemolysin, A., 1066.
- Kilgore, *L. B.*, change in peroxide values of corn [maize] and cottonseed oils under various storage conditions, B., 877.
- Kiliani, *H.*, electrolytic preparation of aldonic acids, A., 261.
- Killeffer, *D. H.*, sulphonated higher alcohols: new detergents, B., 259.
- Killian, *C.*, seasonal fluctuations of chlorophyll assimilation by Algerian plants, A., 543.
- Killian, *H.*, and Schwörer, *G.*, combination of morphine with local anaesthetics and the assay of the analgesic constituent, A., 1327.
- Killian, *J. A.* See Bandler, *C. G.*
- Killing, *E.* See Latta, *F.*
- Kilner, *A. H.*, material impregnated with regenerated cellulose, (P.), B., 15.
- Kilpatrick, *A. S.* See Holt, *T. W.*
- Kilpi, *S.*, action of hydrogen chloride on propyl alcohol; relation between reaction velocity and electrostatic activity, A., 1125.
- Kim, *C. H.* See Oh, *M. Y.*, and Rhee, *S. E.*
- Kim, *M. S.*, effect of liver extract on bile-pigment formation, A., 754.
- Kim, *S.*, gastric secretion during high intestinal obstruction, A., 629.
- Kimball, *D. A.*, influence of soil-moisture differences on apple-fruit colour and condition of trees, B., 644.
- Kimball, *F. E.*, refining of gasoline, (P.), B., 740. Refining of gasoline with beryllium salts, (P.), B., 903.
- Kimball, *G. E.*, and Eyring, *H.*, five-electron problem in quantum mechanics, and its application to hydrogen-chlorine reaction, A., 11.
- Kimball, *H. S.*, Paulson process of evaporation and combustion of sulphite[*-cellulose*] waste liquor, B., 423.
- Kimball, *L. B.*, and Fuel Development Corp., fuel [for internal-combustion engines], (P.), B., 10.
- Kimball, *W. S.*, ellipsoidal viscosity distribution, A., 895.
- Kimberly, *A. E.*, and Emley, *A. L.*, deterioration of book papers in libraries, B., 620.
- Kimble, *H. E.*, diathermy test for sugar and albumin in urine, A., 1188.
- Kime, *J. A.*, use of stannous chloride in evaluation of dye mixtures, B., 541.
- Kimishima, *T.* See Shimada, *K.*
- Kimm, *R. H.*, and Noguchi, *Taro*, chemical constituents of rice embryo, A., 876.
- Kimura, *G.*, polarographic studies with the dropping mercury cathode. XXIX. Electrodeposition of calcium and magnesium and the determination of calcium, A., 131.  
See also Ishikawa, *F.*
- Kimura, *H.*, insecticides, (P.), B., 526.
- Kimura, *K.* See Arakatsu, *B.*
- Kimura, *M.*, nucleic acid in saké pressed cake and brewer's yeast, A., 535, 1179. Nucleic acid of rice embryo (oryza-nucleic acid). I., A., 1092.
- Kimura, *R.*, elastic constants of single crystals of copper, A., 1237.
- Kimura, *S.*, and Isoda, *I.*, acquisition of antitoxic character of liver, A., 532.
- Kimura, *T.* See Fujimaki, *Y.*
- Kimura, *W.*, crystalline derivatives of dithiocyanostearic acid. I. Synthesis of thiocyanogen derivatives of benzoyl-methyl and *p*-halogenbenzoylmethyl esters of oleic acid, A., 940.
- Kin, *K.*, relation between constitution of opium alkaloids and their action on intestinal movements in rabbits, A., 311. Effect of constituents of *Panax ginseng* on blood-sugar, A., 311. Effect of *Rehmannia lutea* on blood-sugar, A., 311. Relation between chemical structure of opium alkaloids and their effect on the movement of the intestines of rabbits *in situ*, A., 1198.
- Kin, *S.*, function of chloride secretion in the stomach, A., 737.
- Kin, *T.*, rôle of liver in acid-base balance of the body, A., 305.
- Kinard, *F. W.* See Chanutin, *A.*
- Kinberg, *W.*, and Eisner, *K.*, mercuric chloride impregnation [of wood], B., 788.
- Kindler, *K.*, and Hesse, *F.*, syntheses of pharmacologically important amines. VII. Synthesis of secondary and tertiary amines by hydrogenation of nitriles, A., 1288.  
and Peschke, *W.*, mechanism of chemical reactions. IV. Specific hydrogenation with combined hydrogen, A., 358. Synthesis of pharmacologically important carboxylic acids. I. Synthesis of arylacetic acids from aromatic aldehydes and of arylpropionic acids from aromatic carboxylic acids, A., 1293.
- Kindström, *A. L.*, and Hägg, *G.*, X-ray investigation of system iron-selenium, A., 1111.
- Kindt, *G. C.*, optically active non-sugars in fermented molasses, B., 841.
- Kinetic Chemicals, Inc., antimony trifluoride, (P.), B., 227. Fluorine derivatives of hydrocarbons, (P.), B., 740.
- King, *Alexander*, chemisorption on charcoal. I. Acid constituent of charcoal, A., 898.
- King, *Alfred*. See Campbell, *C.*
- King, *Allen*. See Taylor, *A. M.*
- King, *A. E.*, Roschen, *H. L.*, and Irwin, *W. H.*, accelerated stability test [for fats], using the peroxide value as an index, B., 876.
- King, *A. S.*, temperature classification of the spectrum of neodymium, A., 1096.  
See also Meggers, *W. F.*
- King, *A. T.*, mammalian hair growth. I. Sulphur economy of animal fibre production, A., 309.  
and Nichols, *J. E.*, mammalian hair growth. II. The chemico-histological system in follicle activity, A., 309.  
See also Barritt, *J.*, and Hirst, *H. R.*
- King, *C. G.* See Bridgman, (*Miss*) *C. M.*,  
Gliek, *D.*, Jackson, *D. T.*, and Waugh, *W. A.*
- King, *C. J.*, and Hope, *C.*, distribution of cotton root-rot fungus in soil and in plant tissues in relation to control by disinfectants, B., 245.
- King, *C. V.*, and Cheng Ling Liu, rate of solution of marble in dilute acids, A., 679.
- King, *E. C.* See Seyer, *W. F.*
- King, *E. J.*, new form of filter stick: its use in gravimetric analysis, A., 801.  
and Davidson, *V.*, biochemistry of silicic acid. IV. Relation of silica to the growth of phytoplankton, A., 1078.  
and Dolan, *M.*, enzymic hydrolysis of phosphatides. II. Lysolecithin, A., 635.
- Hull, *H.*, and Hall, *G. E.*, calcium-phosphorus metabolism in the chicken. IV. Ergosterol requirements of growing chicks, A., 1089.

- King, E. J., and Stantial, H., biochemistry of silicic acid. I. Micro-determination of silica, A., 1078.
- Stantial, H., and Dolan, M., biochemistry of silicic acid. II. Presence of silica in tissues. III. Excretion of administered silica, A., 1078.
- See also Lucas, C. C.
- King, E. W., and Semet-Solvay Eng. Corp., distillation of coal with recovery of the gaseous distillate, (P.), B., 339.
- King, F. B., and Rapport, D., fate of intravenously injected tyrosine, A., 528.
- King, F. E., and Robinson, R., synthesis of physostigmine (eserine). VII., A., 517.
- King, G. W. See Harris, L.
- King, H., 4-nitro-5-(3-pyridyl)pyrazole, a new oxidation product of nicotine. II. Methylation products, A., 76.
- See also Adam, N. K., Cohen, A., Dyke, W. J. C., Gough, G. A. C., and Rosenheim, O.
- King, H. H. See Perkins, A. T.
- King, H. J. S., amines. VII. Action of acids on dihydroxotetramminocobaltic hydroxide. VIII. Dihydroxotetramminochromic hydroxide and its derivatives, A., 684, 686.
- Cruse, A. W., and Angell, F. G., amines. VI. Nickelamine salts in aqueous solution, A., 126.
- King, J., determination of tartaric acid in foodstuffs, B., 410.
- King, J. F., and Romer, A., adsorption of thorium-B and -C from solution. I., A., 899.
- King, J. G., hydrogenation of coal and tar, B., 947.
- and Crossley, H. E., quantitative analysis of coal ash, B., 849.
- and MacDougall, D., coal sampling; reduction of samples for analysis, B., 372.
- and Matthews, M. A., treatment of tar, B., 6, 179.
- See also Grumell, E. S.
- King, M., colour pictures [on glass], (P.), B., 158.
- King, N., microscopy of flotation phenomena in reflected light, A., 458. Microscopy of milk foam in reflected light, B., 522.
- King, N. J., calibration and salt error of the antimony electrode; its application in soil reaction measurements, A., 1135. Wet and dry combustion methods for determining total carbon in soils and other materials, B., 5.
- See also Kerr, H. W.
- King, R. E. See Brit. Thomson-Houston Co.
- King, R. H., Crocker, A. O., Van Domselaar, B. B., Thomas, L. N., Henderson, K., Adams, W. S., and Westley, W. A., [kiln for] production of artificial lava for use as an aggregate in production of bituminous concrete or asphalt, (P.), B., 966. Composition for use as a pavement for surfacing roads, etc., (P.), B., 1010.
- King, R. H. (Philippine Is.), viscosity of impure cane sugar solutions, B., 600.
- and Jison, N. L., destruction of sucrose in boiling A-syrups, B., 486.
- King, R. M., mechanics of enamel adherence. VIII. (a) Apparatus for firing enamels under accurate control of temperature, pressure, and atmosphere; (b) firing enamels under reduced pressures, B., 548.
- King, R. M., fluorides. I. and II. Use in vitreous enamel industry, B., 705.
- and Evans, C. L., resistance to sudden temperature change of some bodies of the system talc-clay-mullite, B., 867.
- See also Carter, W. K., and McIntyre, G. H.
- King, R. O., beneficial effect of oxidation on lubricating properties of oil, B., 258. Effect of metallic (lead) dope on carbonisation of oil in the combustion space of an engine, B., 948.
- King, W. See Olsen, S. D.
- King, W. B., and Brown, F. E., modification of Bettendorff's arsenic test, with adaptation for mercury determination, A., 687.
- King, W. N. See Hamilton, C. S.
- King Co., Inc. R. J., processing and compounding of rubber, (P.), B., 979.
- Kingcome, H. A. See Strachan, J.
- Kingisepp, G. See Barkan, G.
- Kingsbury, F. L. See Titanium Pigment Co.
- Kingsbury, J. See Myers, C. N.
- Kingsbury, R. M. See Yanovsky, E.
- Kinnersley, H. W., O'Brien, J. R., and Peters, R. A., potency of vitamin-B<sub>1</sub> preparations, A., 99.
- O'Brien, J. R., and Peters, R. A., crystalline preparations of vitamin-B<sub>1</sub>, A., 541.
- O'Brien, J. R., Peters, R. A., and Reader, V., large-scale preparation of vitamin-B<sub>1</sub> and -B<sub>2</sub> concentrates, A., 541.
- See also Heard, R. D. H.
- Kinney, A. M., and Standard Oil Co., textile oil, (P.), B., 543.
- Kinney, C. R., Smith, E. Westley, Woolley, B. L., and Willey, A. R., anisidroxamyl chloride, A., 1050.
- and Ward, O. W., direct carboxylation of carbon compounds. II., A., 1159.
- Kinney, E. J. See Roberts, G.
- Kinnison, A. F. See Finch, A. H.
- Kinnison, W. E., and Standard Oil Co. of Indiana, filtration, (P.), B., 529.
- Kino, K., polymerisation of methyl esters of higher unsaturated fatty acids. XI. Structure of the dimerides of the methyl ester of linoleic acid. XII. Structure of the intramolecular reaction products of methyl clupanodonate, A., 376, 807.
- Kinsel, A., and Litharge Recovery Corp., separation of metallic-base reaction products from other derivatives in the treatment of hydrocarbon oils, (P.), B., 740.
- Kinsella, E. See Brit. Celanese.
- Kinsey, B. B. See Oliphant, M. L. E.
- Kinzel, A. B., and Electro Metallurgical Co., casting of steel ingots, (P.), B., 834.
- See also Egan, J. J.
- Kinzerski, J. E. See Herov, K. V.
- Kinzie, C. J., and Commons, C. H., jun., determination of coefficient of expansion [of enamels], B., 227.
- and Titanium Alloy Manufg. Co., enamels, (P.), B., 62.
- Kipper, H. B., and Knox, R. B., acetylene from petroleum oil, (P.), B., 694.
- Kipping, F. B., stereoisomeric 2:3:4:6-tetramethylpiperazines. IV., A., 401.
- Kipping, F. S. See Cusa, N. W.
- Kiprianov, A. I., and Dashevski, M. M., use of polychlorobenzenes in the synthesis of dyes. III. Preparation of *p*-chlorophenol from *p*-dichlorobenzene, B., 215.
- and Kiprianov, G. I., synthesis of alk-amino-acids by cyanohydrin method, A., 157.
- Kiprianov, G. I., and Dashevski, M. M., use of polychlorobenzenes in the synthesis of dyes. IV. Preparation of *p*-aminophenol from *p*-dichlorobenzene, B., 215.
- and Sytch, E. D., use of polychlorobenzenes in the synthesis of dyes. V. Preparation of pyrocatechol from polychlorobenzenes, B., 215.
- Kiprianov, G. I. See Kiprianov, A. I.
- Kirby, A. W. W. See Baker, W.
- Kirby, G. W. See Internat. Yeast Co., and Schultz, A.
- Kirby, J. B., centrifugal machine, (P.), B., 176.
- Kirby, J. E. See Carothers, W. H.
- Kirby, R. H. See Gilman, H.
- Kirehdorfer, F., linoleum adhesives and their drawbacks, B., 157.
- Kircher, W., illumination in the chemical industry, B., 447.
- Kirechhof, F., microchemical colour reaction of *m*-dinitrobenzene for forensic detection of benzene, A., 746. Rubber antioxidants. III., B., 557. Notch-and tearing-strength of anisotropic rubber sheets, B., 979.
- Kirechhof, G. A., and Stepanov, A. D., [preparation of] isopropyl alcohol, A., 143.
- Kirehner, F., atomic disruption by means of hydrogen canal rays, A., 4. Condensation chamber photographs of atomic disintegration by rapid protons, A., 551. Atomic particles of small range from lithium and boron, A., 1098. Artificial atomic disintegration, A., 1225.
- Kirchner, M., and United Chromium, Inc., electroplating equipment [for plating small articles in bulk], (P.), B., 635.
- Kirejev, V., heat of mixing of normal liquids, A., 561. Application of Henglein's equation to solutions and mixtures, A., 669.
- Kirilenko, N. V., determination of labile sulphur in gelatin, A., 733.
- Kirillov, I. P. See Postnikov, V. F.
- Kirillova, R. E. See Komar, N. V.
- Kirk, E., urea precursor depot in kidney tissue, A., 1318.
- See also Van Slyke, D. D.
- Kirk, E. W. See Brit. Celanese.
- Kirk, H. C., oil-[conversion] treatment, (P.), B., 854.
- Kirk, J. S., concentration of soya-bean urease; new method for the purification of enzymes, A., 750.
- See also Sumner, J. B.
- Kirk, P. L., quantitative drop analysis. I. Apparatus and technique, A., 1262.
- and Moberg, E. G., micro-determination of calcium in sea-water, A., 478.
- See also Miller, R. P.
- Kirkaldy, A., and Electro Anti-Corrosion Corp., electrolytic means for protection of boilers, (P.), B., 576.
- Kirkbride, F. W., and Norrish, R. G. W., primary photochemical processes. II. Absorption spectrum and photochemical decomposition of diazomethane, A., 359.



- Kirkhof, G., reduction of aromatic nitro-compounds to amines, A., 269.
- and Eskin, I. T., *m*-nitroaniline, A., 269.
- and Zilberg, I. G., morrhual, B., 171.
- Kirkpatrick, P., and Ross, P. A., absolute X-ray reflectivities of single crystals of calcite, rock-salt, Rochelle salt, and barite, A., 549.
- Kirkpatrick, W. S., Sutherland, B. P., and Wright, C. H., electrolytes for hydrogen-oxygen cells, B., 752.
- Kirkwood, J. G., polarisabilities and intra-atomic energies of hydrogen and helium, A., 206.
- Kirner, W. R., vesicant action of halogenated sulphides, A., 1076.
- Kirnich, W., new methods of construction of rotating-grate [gas] producers, B., 48.
- Kirrmann, A., alkylidene acetate pyruvates, A., 807.
- and Prévost, C., ionic theory of organic reactions. III. Ring-chain tautomerism and conception of "syn-ionic," A., 718.
- Kirsanov, A. T., mathematical interpretation of effect of nutrients [on plant growth], B., 84. Effect of physiologically acid fertilisers on podsol soils and their availability to plants, B., 322. Adsorption of phosphoric acid by soil, B., 560.
- Kirsanova, E. E., and Liuzernova, G. A., effect on plants of a partial introduction of H, Mg, Na, and NH<sub>4</sub> into the soil adsorbing complex, B., 402.
- Kirsanova, E. E. See Kirsanov, A. T.
- Kirsch, G., atomic disintegration with neutron emission, A., 659. Nuclear radii and atomic disintegration efficiency for heavy elements, A., 995.
- and Slonek, W., excitation of neutron emission from beryllium, A., 205.
- Kirschbaum, E., efficiency of rectifying apparatus, B., 991.
- Kirschbraun, L., production and cooling of bituminous emulsions, (P.), B., 535. Cooling of molten bitumen, (P.), B., 535. Aqueous [bitumen-pitch type] dispersions, (P.), B., 694.
- and Flintkote Corp., aqueous dispersions [of bitumen], (P.), B., 455. Bituminous emulsions, (P.), B., 499. Asphalt, (P.), B., 1044.
- and Universal Oil Products Co., apparatus for cracking hydrocarbon oils, (P.), B., 100. Cracking of oil, (P.), B., 456.
- Kirschman, H. D., and Crowell, W. R., reaction between osmium tetroxide and hydrobromic acid. I. Equilibrium, A., 351.
- Kirsh, D. See Waksman, S. A.
- Kirst, W. B. See Du Pont de Nemours & Co., E. I.
- Kirstahler, A. See Fischer, Hans.
- Kiryushkin, V. A. See Lyutin, L. V.
- Kisch, B., catalytic deamination of amino-acids, A., 263. Effect of phosphate on tissue respiration, A., 305. Oxidative deamination of amino-acids by methylglyoxal, A., 381. Sensitivity of tissue respiration to action of cyanide, A., 974. Stimulation of tissue respiration by small amounts of cyanide, A., 977. Quinones as enzyme models. X. Activation by salts of bivalent cations of the catalysis of oxidative deamination of amino-acids, A., 979.
- Kisch, B., and Schuwirth, K., quinones as enzyme models. VIII. CO<sub>2</sub>/NH<sub>3</sub> quotient in oxidative deamination. XI. Role of the anions in this process, A., 313, 979.
- and Stütze, S., quinones as enzyme models. IX. CO<sub>2</sub>/NH<sub>3</sub> quotient in anaerobic amino-acid deamination, A., 634.
- Kiselev, V. S., and Chatzet, V. E., influence of anti-oxidants on ageing of oil films, B., 754.
- and Norina, L. I., influence of driers on ageing of oil films, B., 754.
- Kishen, J., spectrum of trebly-ionised lead, A., 2.
- Kishi, S. See Wieland, H.
- Kishi, Y., composition of mulberry leaves. I. Cystine and cysteine. II. Reaction of ash, A., 878, 1093. Proteins of mulberry leaves. I. Kinds of protein-nitrogen in mulberry leaves and a comparison of the quantities of protein-nitrogen in different parts of the mulberry tree. III. Quantitative changes of proteins contained in mulberry leaves during maturation, A., 1217.
- and Monobe, S., influence of defoliation and pinching back on young mulberry trees. I. Defoliation, B., 37.
- Kishner, N., hydrolytic decomposition of *o*-xylenesulphonic acid, A., 1283.
- and Krasova, V., synthesis of fast-violet B base, its isomeride, and analogous compounds, A., 1045.
- Kiss, A. von [with Bossányi, I.], mechanism of the ferricyanide-iodide reaction, A., 469.
- [with Vass, P.], neutral salt effect in the thiosulphate and monobromoacetate ion reaction. I., A., 130.
- and Urmáney, A., neutral salt action in the reaction between formic acid and iodine, A., 1017.
- Kissel, A. D., use of coal as a manure, B., 933.
- Kisser, J., and Lettmayr, K., quantitative applicability of spot reactions, A., 137. Absorption experiments with sawdust, B., 562. Absorption of salts by seeds, B., 566.
- and Lorenz, M., action of stimulating chemicals on germination of *Pisum* and *Triticum* under optimum germinating conditions, B., 1028.
- Kissin, B. I., separation of *m*-xylidine from a mixture of isomerides by means of formic acid, B., 581.
- Kistiakowski, G. B. See Heidt, L. J.
- Kistiakowski, V. A., and Dankov, P. D., electrocrystallisation of metals. II., A., 468.
- Kistler, S. S., coagulation, viscosity, and thixotropy in colloidal systems, A., 125.
- Kistner, H., use of small orifices for measurement of small quantities of flowing gas and for determining density of gases, A., 248.
- Kiszely, Z. See Féher, D.
- Kita, G. See Iwasaki, S.
- Kitagawa, M., and Yamada, H., canavanine, an amino-acid. II. and III., A., 382, 1059.
- Kitahara, K. See Katagiri, H.
- Kitaigorodski, I. I., and Bregman, N. S., magnesias as a substitute for sodium oxide in the mechanised manufacture of glass, B., 866.
- Kitaigorodski, I. I., and Chernyak, M. G., influence of aluminium oxide on physico-chemical properties of glass in dependence on raw materials, B., 669.
- and Fedorova, M. S., volatilisation of boric acid during glass melting, B., 669.
- Popova, T. A., and Botvinkin, O. K., thermal analysis of the system lithium fluoride-lithium metaborate, A., 1013.
- Kitajima, G. See Tomii, R.
- Kitajima, K. See Atsuki, K.
- Kitaoka, M., glycosuria in spirochaetosis icterohæmorrhagica, A., 740.
- Kitazawa, K., relation between food plants and the properties of cocoons of *Antheraea yamamai* and *A. pernyi*, A., 178.
- Kitasato, Z., and Sone, C., constitution of hederagenin and oleanolic acid. IV., A., 612.
- Kitschkin, A. See Nametkin, S. S.
- Kitsée, I., and Mineralite Corp., protecting metallic surfaces of refrigerators from sulphur compounds, (P.), B., 896.
- Kitsuta, K. See Ames, J. W.
- Kittel, H., and Hüttig, G. F., and Herrmann, Z., active oxides. I.IX. Variation of magnetic and X-ray spectroscopic properties during the conversion of a mixture of zinc and iron oxides into spinel. LXIV. Alteration in magnetic and X-ray spectroscopic properties during the transformation of a mixture of magnesium oxide and iron oxide into spinel, A., 214, 676.
- See also Haurowitz, F., and Hüttig, G. F.
- Kittelberger, W. W. See Nelson, H. A.
- Kittredge, J., jun. See Alway, F. J.
- Kiyokawa, M., biological fission of histidine, A., 308.
- Kiyota, H., electrolytic deposition of zinc from acid solutions, A., 235.
- Klaas, R. See Glatfeld, J. W. E.
- Klaasen, J. A., hydrocyanic and thiocyanic acids in the living organism, A., 92.
- Klärning, J., salzgüter iron ores, B., 348.
- Klager, K. See Späth, E.
- Klages, F., nomenclature of dissociating compounds; (acid-base problem), A., 1012.
- Klages, K. H. W., value and application of [plant]-growth curves to field-plot experiments, B., 933.
- Klaiber, F., conditions for striking low-voltage arcs and grid-directed low-voltage arcs, A., 656.
- Klan, Z. F., micro-chemical reaction of scopolamine, A., 408.
- Klander, F. See Blanck, E.
- Klapholz, R. See Rappaport, F.
- Klar, R., connexion between centres active in adsorption and catalytic activity; (measurements with active iron), A., 1126.
- Klare. See Diels, O.
- Klarmann, E., Gates, L. W., and Lehn & Fink, Inc., hydroquinone [quinol] derivatives [bactericides], (P.), B., 734. [Preparation of] monoethers of resorcinol, (P.), B., 999.
- Shternov, V. A., and Gates, L. W., alkyl derivatives of halogenophenols and their bactericidal action. I. Chlorophenols, A., 817.
- Klarmann, H. See Bothe, W.
- Klason, P., lignin reactions, A., 715.
- Tetraconiferylaldehydesulphonic acid (tetraligninsulphonic acid), A., 1163.
- Klassen-Nekudova, M. V. See Davidenkov, N. N.

- Klatt, R., iodine values of drying oils, with especial reference to the "rapid" [Margosches] method, B., 28.  
See also Galle, E.
- Klatt, W. See Fredenhagen, K.
- Klatzow, L. See McCallum, S. P.
- Klauditz, W. See Schütz, F.
- Klauser, H., determination of alcohol in blood and brain, A., 1327.
- Klaus, K., lipins of human placenta, A., 967.
- Klausner, R., activity of public hydraulic stations in supplying industrial water, B., 894.
- Kleber, W., solution of fluorite, A., 360.
- Kleberger, W., and Rudolf, H., amount of plant food removed from soil by leguminous crops, as based on their nutrient contents, B., 982.
- Klebermass-Messiner, L. See Barrenschneen, H. K.
- Klebs, G. See Stern, A.
- Klechkov, V. M., variation in "effect factor" of yield formula of Mitscherlich, B., 84.
- Klee, H., control of the wheat midge by cultivation and manuring, B., 86.
- Kleeman, R. D., law of force between the molecules in a liquid or gaseous mixture, A., 1244.
- Kleen, W. See Rothe, H.
- Kleff, P. A. See Kelly, T. L.
- Kleffner, J., and Kohlmeier, E. J., effect of silica on the dissociation of ferric oxide, A., 40.
- Kleiber, M., relation between volume of respiration chamber and concentration of carbon dioxide in end sample and in composite sample of air, A., 481. Method of gas analysis for respiration trials, A., 1064.
- Kleiderer, E. C., and Adams, R., stereochemistry of diphenyls. XXVIII. Preparation and properties of 2:2'-difluoro-6:6'-dinitro-5:5'-dimethyldiphenyl-3:3'-dicarboxylic acid. XXXI. Preparation and properties of 5:5'-dichloro-2:6:2':6'-tetrafluorodiphenyl-3:3'-dicarboxylic acid, A., 392, 1294.  
See also Dykins, F. A.
- Klein, Franz, adsorption from the gas phase by solid adsorbents, A., 346.
- Klein, Friedrich, red pigment of iron oxide, (P.), B., 199.
- Klein, Georg. See Gerngross, O.
- Klein, Gustav, and Keyssner, E., plant tumours. I. Nitrogen balance. II. [H<sup>+</sup>], A., 106.  
and Linser, H., æsculin changes during the breaking of buds of *Æsculus hippocastanum*, A., 102. Choline metabolism in plants. II., A., 648. Formation of betaine and alkaloids in plants. II. Stachydrino. and trigonelline. III. Formation of nicotine, A., 758, 1344.
- and Tauböck, K., arginine metabolism and urea formation in higher plants. II., A., 197.
- and Ziese, W., plant tumours. III. Catalase content of normal and tumour tissue, A., 106. Tumour-arginase. II. Activation and inhibition of arginase. III. Action of boiled and native juices from tumour, muscle of the affected animal, and from healthy muscle on arginase from liver and tumours and on extracts from healthy muscle, A., 315. Arginase and arginine in the metabolism of tumours, A., 1188.
- Klein, Hans. See Luther, M.
- Klein, Henry. See Blumberg, H.
- Klein, Hermann, coalification of lignite by heating under pressure with superheated steam, B., 290.
- Klein, J. See Gebhardt, F.
- Klein, Joseph, electron emission of thin metal layers under X-rays, A., 441.
- Klein, L., and Wilkinson, J. F., hæmopoietin, the anti-anæmic substance in hog's stomach. I., A., 641.  
See also Wilkinson, J. F.
- Klein, N., and Szentmihályi, S., bilirubin and the blood-[cerebrospinal] fluid barrier, A., 303.
- Klein, R. See Lutz, O.
- Klein, R. I. See Reed, C. I.
- Klein, S. J., solubility of *Pneumococcus* in saponin. III. Sensitisation by ergosterol, A., 1207.
- Klein, W., nuclein metabolism. XXXI. Enzymic depolymerisation of animal nucleic acid, A., 981.  
and Thannhauser, S. J., nuclein metabolism. XXXII. Ribodeoxyguanylic acid, A., 981.
- Kleine, H. O., action of prolan, prähormon, and anterior pituitary extracts on the thyroid gland, A., 869.
- Kleine, O. See Oehme, C.
- Kleinefenn, W. See Pivovarsky, E.
- Kloiner, I. S., and Halpern, R., fluctuations of blood-sugar *in vitro*, A., 966.  
and Tauber, H., enzymes of the mammary gland; presence of glucomaltase, A., 314. Simultaneous determination of lactose and glucose in urine, A., 738.  
See also Tauber, H.
- Kleinert, T., vapour-liquid equilibria of ethyl alcohol-water mixtures at temperatures from 120° to 180°, A., 119.
- Kleinfeller, H., and Frercks, W., attempted synthesis of "diamantoid" substances, A., 1295.  
and Stahmer, H., elimination of the nitro-group from tertiary nitro-compounds. III., A., 931.
- Kleinlogel, H., and Hajnal-Kónyi, K., relation between setting time and heat evolution of cement, B., 1010.
- Kleinman, H. A., and Gas Machinery Co., dehydration of tar, (P.), B., 8.
- Kleinmann, H., and Bork, H., uricolysis. I. Occurrence and properties of uricase. II. Preparation and investigation of purified uricase solutions. III. Products of the enzymic decomposition of uric acid, A., 864, 865.
- Kleinschmidt, R. V., handling high pressures in chemical synthesis, B., 815.
- Kleinschmit, R. See Deines, G.
- Kleise, K. S. See Mueller, John Hughes.
- Klem, P., treating mechanical wood pulp, (P.), B., 502.
- Klemen, R. See Samec, M.
- Klemenc, A., and Bankowski, O., properties of volatile hydrides. II. Preparation, [vapour] tensions, and densities of pure hydrogen sulphide; (at. wt. of sulphur). III. System H<sub>2</sub>S-CO<sub>2</sub>, A., 16, 126.
- Klement, R., lead compounds of glycine, cysteine, and β-thiolpropionic acid, A., 1148. Fluorine content of bones and teeth, A., 1184.  
and Trömel, G., hydroxyapatite, the chief constituent of inorganic bone- and tooth-material, A., 296.
- Klemm, L., Klemm, W., and Schiemann, G., miscibility of aromatic halogen compounds in solid state, A., 897.
- Klemm, W., rare earths, A., 110. Interpretation of ultra-violet absorption bands of alkali halides, A., 660.  
and Henkel, P., refractive power of gaseous fluorides, A., 889.  
and Schüth, W., magnetochemical investigations. VIII. Constitution of simple cobalt and nickel compounds in the light of their magnetic behaviour, A., 212.
- Schüth, W., and Stackelberg, M., magnetochemical researches. VII. Magnetism of rare-earth borides, A., 115.  
See also Biltz, W., and Klemm, L.
- Klemola, V., and Hohlweg, W., avitaminosis and keratinisation, A., 1339.
- Klemperer, O., inelastic collisions of fast electrons, A., 109.
- Klempt, W., control of crystal size in manufacture of ammonium sulphate in the saturator process, B., 623.  
and Riese, W., determination of hydrocyanic acid in coke-oven and similar gases, B., 257.  
See also Gluud, W.
- Klenk, E., phosphatides. VI. Fatty acids of the liver phosphatides and of the liver oil of *Elmopterus spinax*, A., 846.  
and Diebold, W., cerebroside. XIII. Cerebronic acid, A., 489.
- Klenke, J. See Gessner, O.
- Kletzien, S. W., Buchwald, K. W., and Hudson, L., mineral metabolism—copper and iron, A., 976.
- Kleu, H. See Pfeiffer, P.
- Kleucker, E. See Krauss, F.
- Kleyer, G., [qualitative analysis of] urinary sediments, A., 178.
- Kliefoth, M. H., and Burgess Labs., Inc., C. F., fibrous product, (P.), B., 621.
- Kliesch, J. See Kronacher, C.
- Kligerman, I. M., composition of gasolines, B., 212.
- Klima, J., lichen chemistry. II. *Alectoria ochroleuca*, Ehrh., A., 876.
- Klimek, R., adenylic acid and adenine nucleotide. II., A., 843.  
and Parnas, J. K., reactions of purine bases with copper sulphate and alkali, A., 964.  
See also Parnas, J. K.
- Klimke, W., and Holthaus, B., blood-bromine in psychomotor excitation, A., 629.
- Klimmeck, A., determination of size of ultramicroscopic particles by the interference microscope, A., 1115.
- Klimov, B. K., Lanin, V. A., and Kerotkin, Z. K., application of peat coke to manufacture of calcium carbide, B., 747.
- Lanin, V. A., and Pugatschev, N., gasification of schungite, B., 611.
- Klinar, H. See Eilender, W.
- Kline, G. M., determination of tautness of doped fabrics, B., 1053.
- Kline, O. L., Keenan, J. A., Elvehjem, C. A., and Hart, E. B., use of the chick in vitamin-B<sub>2</sub> and -B<sub>6</sub> studies, A., 324.  
See also Elvehjem, C. A., and Hart, E. B.
- Klinefelter, T. A., Meyer, W. W., and Vachuska, E. J., properties of English china clays, B., 627.
- Kling, A., sterilisation of water for domestic use by means of metallic silver, B., 126.  
and Soulier, A., accidental ignition of petrol vapour by electric sparks, B., 137.

- Kling, *M.*, and Engels, *O.*, relations between reaction of soils and their root-soluble potassium and phosphate contents, *B.*, 242.
- and Jürgens, *W.*, destruction of weeds in oats by means of finely-ground kainit, *B.*, 645.
- Kling, *W.* See Götte, *E.*
- Klingelhofer, *W. C., jun.* See Rodebush, *W. H.*
- Klinger, *P.*, and Schliessmann, *O.*, determination of zirconium in iron, steel, and ferro-alloys by means of phenylarsinic acid, *B.*, 920.
- Schliessmann, *O.*, and Zänker, *K.*, technical spectrographic analysis in steelworks laboratories, *B.*, 630.
- Klingstedt, *F. W.*, ultra-violet absorption spectra of simple benzene derivatives. II, *A.*, 336.
- Klinkenberg, *G. A. van*, specificity of amylases. II. Enzymic analysis of starch and glycogen, *A.*, 92.
- Klinkenstein, *G.*, hydrocarbon jelly composition, (P.), *B.*, 10.
- and Maas & Waldstein Co., [smooth, crystal] coating composition, (P.), *B.*, 115.
- Klinkowski, *M.*, biology of the potato. XV. Catalase of potato tubers, *A.*, 103, 329.
- Klippel, *H.* See I. G. Farbenind.
- Klit, *A.* See Biilmann, *E.*
- Klitzing, *K. H. von*, magneto-optical rotation of nickel, *A.*, 1109.
- Kljatschkina, *B.*, and Stuber, *E.*, determination of morphine, *A.*, 621.
- Klobusitzky, *D. von*, electro-ultrafilter, *A.*, 139. Simple electrolytic generation of hydrogen and oxygen, *A.*, 367. Testing of ampoule glasses, *B.*, 227.
- and Pauli, *W.*, electrolyte-free proteins. XI. Electrochemical composition of highly purified protein solutions, *A.*, 621.
- Klockmann, *R.* See Hahn, *F. L.*
- Kloepfer, *H.*, and Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler, purification of gases [hydrogen, etc.], (P.), *B.*, 267.
- Klokov, *P.* See Ivanov, *S.*
- Klooster, *H. S. van*, and Debacher, *M. O.*, single crystals of the intermediate compound antimony-tin, *A.*, 344.
- and Stearns, *E. I.*, binary system lead iodide-potassium iodide, *A.*, 1245.
- Klootwijk, *A.* See Kreulen, *D. J. W.*
- Klopfer, *F. A. V.*, solid preparations of lactic acid, (P.), *B.*, 811.
- Klopfer, *V.*, colloidal solutions of metal iodides, (P.), *B.*, 105.
- Klopsch, *O. Z.* See Craig, *G. L.*
- Klopsteg, *P. E.*, and Central Scientific Co., density-demonstrating apparatus, (P.), *B.*, 816. Viscosity apparatus, (P.), *B.*, 897.
- Klopstock, *A.*, and Neter, *E.*, effect of tannin on hæmolytic agglutination, and action of toxins, *A.*, 734.
- Klopstock, *F.*, effect of heparin and germanin on immuno-reactions, *A.*, 411. Excretion of antigenic substances with the urine in infectious diseases, particularly tuberculosis and syphilis, *A.*, 1192.
- Klosky, *S.* See Milligan, *C. H.*
- Klotschko, *M. A.*, Batalpaschinsk lakes, *A.*, 1028.
- Klozenberg, *M.*, [printing a] chrysoidine brown shade, *B.*, 425.
- Kling, *A.*, flashlight powders, (P.), *B.*, 493.
- Klug, *H. P.*, crystal structure of *o*-iodobenzoic acid, *A.*, 558. Crystal structure of potassium thiocyanate, *A.*, 666.
- Kluge, *H.*, milk diastase, *B.*, 330.
- and Zitek, *A.*, elementary sulphur as cause of deterioration of concrete, *B.*, 917.
- Kluge, *L.* See Eichholtz, *F.*
- Kluge, *M.*, and Schönfeld, *H.*, electrical Barkhausen effect with crystals of sodium potassium tartrate, *A.*, 342.
- Kluge, *W.*, selective photo-effect and optical absorption at composite photo-cathodes, *A.*, 8. Occurrence and explanation of selective photo-electric electron emission from composite alkali cathodes, *A.*, 209. Optical absorption at photo-electric dual selective surface layers, *A.*, 765. Photo-electric cells sensitive to red and infra-red light, *A.*, 1103.
- and Rupp, *E.*, electron diffraction and photo-electric effect for alkali metal surfaces, *A.*, 658.
- Klughardt, *A.*, gloss and its measurement, *B.*, 1040.
- Klukowski, *J.* See Binet, *L.*
- Klumb, *H.*, and Glimm, *H. O.*, velocity of evacuation of diffusion pumps working with organic substances, *A.*, 249.
- and Haase, *T.*, measurement of differences in level of liquid meniscus, and manometer for low pressures, *A.*, 140.
- Klumppe, *E.*, oil absorption of brushable paints, *B.*, 799.
- and Meier, *H.*, structure of ready-mixed paint, *B.*, 676.
- Klumppe, *T. G.*, and Bowie, *M. A.*, gastric secretion, *A.*, 849.
- Klussmann, *E.*, and Simola, *P. E.*, col-pokeratosis method of demonstrating the action of vitamin-A, *A.*, 432.
- See also Euler, *H. von.*, Karrer, *P.*, and Virgin, *E.*
- Kluyver, *A. J.*, microbial metabolism and its bearing on the cancer problem, *A.*, 180.
- and Hooft, *F. V.*, preparation of organic compounds [dihydroxyacetone from glycerol] by bacterial oxidation, (P.), *B.*, 217.
- and Hoogerheide, *J. C.*, influence of oxygen on alcoholic fermentation, *A.*, 428. Maltose as a respiration substrate for non-maltose-fermenting yeasts, *A.*, 1204. Influence of iodoacetic acid on respiration and fermentation of yeast, *A.*, 1204.
- and Perquin, *L. H. C.*, determination of metabolism of moulds, *A.*, 1332. [Optimum] conditions for production of kojic acid by *Aspergillus flavus*, Link., *A.*, 1332.
- Klyachkina, *B. A.* See Stuber, *E. Y.*
- Klyachko, *I. R.*, absorption of sulphur dye at different temperatures, *B.*, 862.
- Klyachko, *M.* See Heublyum, *R.*
- Kmuniček, *J.* See Dédéek, *J.*
- Knaab, *I.*, Reid Hunt reaction and liver-glycogen, *A.*, 869.
- Knaggs, *J.*, Marsden, *J. C.*, and Portals, Ltd., waterproof and insulating paper, (P.), *B.*, 544.
- and Portals, Ltd., waterproof and insulating paper, (P.), *B.*, 302.
- Knandel, *H. O.* See Hunter, *J. E.*
- Knapp, *O.*, solubility of lead glasses in relation to their alkali content, *B.*, 190.
- Knapp, *P.* See Du Pont de Nemours & Co., *E. I.*
- Knapp, *W. R.*, and Semet-Solvay Co., removal and recovery of phenols and pyridine from [coal-carbonisation] liquors, (P.), *B.*, 694.
- Knapper, *J. S.*, Craig, *K. A.*, and Chandlee, *G. C.*, phenylarsinic acid as a reagent for determining tin, *A.*, 1263.
- Knaauer, *F.*, proof of wave nature of molecular radiation by scattering in mercury vapour, *A.*, 659.
- Knaauer, *I. F.*, scattering of molecular rays by gases, *A.*, 203.
- Knauss, *H. P.*, CO bands in the region 2220—3300 Å., *A.*, 207.
- Knell, *M.*, does the hormone of the corpus luteum affect the blood-cholesterol? *A.*, 194.
- Knerr, *H. C.*, and Ajax Electrothermic Corp., [heat-treatment of steel, (P.)], *B.*, 110.
- Kneser, *H. O.*, absorption of sound in polyatomic gases, *A.*, 343. [Dispersion theory of sound], *A.*, 343.
- Knibbs, *N. V. S.*, cementitious material of high-alumina type, (P.), *B.*, 149.
- Knickmann, *E.*, determination of manurial requirement [of soils] by means of the root-, citric acid-, and water-soluble phosphoric acid, *B.*, 1072.
- Knigge, *G.*, significance of free alkali in soap, *B.*, 314. Shaving-soap, *B.*, 797. Lathering power of hardened fish oil soaps, *B.*, 1016.
- Knight, *A. H.* See Imperial Chem. Industries.
- Knight, *B. C. J. G.*, and Fildes, *P.*, vitamin necessary for growth of *B. sporogenes*: its relation to auxin and other growth factors, *A.*, 1083.
- See also Fildes, *P.*
- Knight, *G. D.*, and Winship, *E.*, intaglio ink composition, (P.), *B.*, 276.
- Knight, *H.*, and Emulsoids, Inc., insecticide, (P.), *B.*, 728.
- Knight, *L. D. M.*, and Wallace, *T.*, effects of various manurial treatments on chemical composition of strawberries, *B.*, 37.
- Knight, *N. L.*, [determination of] guaiacol, *B.*, 332.
- Knight, *O. S.* See Germann, *F. E. E.*
- Knipp, *C. T.*, "flash" in the afterglow of argon with a fixed vacuum, *A.*, 1221.
- and Scheuerman, *L. N.*, apparent fatigue and ageing phenomena in the active nitrogen afterglow, *A.*, 205.
- Knippenberg, *E.* See Alten, *F.*
- Knoch, *C.*, and Saunders, *A. E.*, soluble dried milk, (P.), *B.*, 91.
- Knoefel, *P. K.*, carbazole derivatives. I. Local anaesthetics of urethane type, *A.*, 310. Narcotic potency in paraldehyde series, *A.*, 1076.
- See also Leake, *C. D.*
- Knoke, *S.* See Braune, *H.*
- Knol, *K. S.* See Coster, *D.*
- Knoll, *A. F.* See Taylor, *T. C.*
- Knoll, *M.*, and Lubszynski, *G.*, electron-microscopic images with secondary electrons, *A.*, 994.
- and Ruska, *E.*, electron microscope, *A.*, 109.
- Knoll, *R. J.* See Clark, *J. d'A.*
- Knoop, *H.* See Schlubach, *H. H.*
- Knop, *L.* See Samec, *M.*
- Knop, *W.*, active ash-free carbon from sugar, *B.*, 496.
- See also Landt, *E.*
- Knopf, *G. D.* See Kurie, *F. N. D.*

- Knorr, A., Weissenborn, A., and Winthrop Chem. Co., *p*-isopropyl- $\alpha$ -methylhydrocinnamaldehyde [ $\beta$ -*p*-isopropylphenylisopropaldehyde], (P.), B., 297.
- Knorr, C. A., and Schwartz, E., simultaneous conduction by electrolytes during measurement of resistance of palladium wire containing hydrogen, A., 676.
- Knott, J. C. See Hodgson, R. E.
- Knott, J. E., effect of mineral elements on colour and thickness of onion scales, B., 518.
- See also Tait, G. M.
- Knowles, A. D., and Tar & Petroleum Process Co., coking of liquid hydrocarbons, (P.), B., 852.
- Knowles, A. S., Andrews, C. W., and Tar & Petroleum Process Co., treatment of [heavy] liquid hydrocarbons, (P.), B., 775.
- Knowles, C. R., mistreatment of water, B., 526.
- Knowles, F., and Watkin, J. E., amounts and distribution of phosphorus and nitrogen compounds in wheat during growth, A., 101.
- Watkin, J. E., and Hendry, F. W. F., nature of calcium and phosphorus combination in excreta of the non-laying pullet, A., 627.
- Knowles, H. L., dielectric constant of ethyl alcohol vapour and possible effect of conductivity, A., 9.
- Knowles, J. R., and Carter, B. C., centrifugal separators, (P.), B., 656.
- Knowles, W. See Brown, Milton H.
- Knowlton, H. E., and Hoffman, M. B., fertilisation of apple orchards. III. Comparison of sodium nitrate and ammonium sulphate, B., 164.
- Knox, L. H. See Noller, C. R.
- Knox, R. B. See Kipper, H. B.
- Kobashi, S., avitaminosis and infection. II. Animal experiments with human leprosy; pathological and histological condition of avitaminous animals inoculated with an emulsion from leprous nodules. III. Relation between vitamins and infection with pus-forming bacteria, A., 1322.
- Kobayashi, G., effects of various neutral salts on the growth of bacteria. I.—III. Sodium and potassium salts, A., 429.
- Kobayashi, K. (Osaka). See Iwatsuru, R.
- Kobayashi, Kiukei, and Abe, J., preparation of acetonitrile using Japanese acid clay as catalyst, A., 494.
- and Yamamoto, Kenichi, solubility of clays in alkaline solution, B., 190.
- Yamamoto, Kenichi, and Ishikawa, H., low-temperature carbonisation of coal in presence of Japanese acid clay. I. and II. III. Mechanism of the process, B., 771, 899.
- Kobayashi, M., equilibria between water vapour and vanadium and its oxides, A., 1120.
- Kobayashi, Ryōnosuke. See Tanaka, Y.
- Kōbayashi, Ryosaku, general constituents of Japanese petroleum. III. Constituents of the fractions boiling up to 200° at atmospheric pressure of petroleum from the Nittsu field, B., 7.
- Kobayashi, Y. See Ariyama, M.
- Kobayashi, Yozo, vapour pressure of water over aqueous solutions of potassium hydroxide, A., 27.
- Kobbé, W. H., and Texas Gulf Sulphur Co., fire-proofing sulphur, (P.), B., 189.
- Kobe, K. A., and Arveson, E. J., platinised silica gel as an oxidation catalyst in gas analysis. I. Oxidation of hydrogen and carbon monoxide, A., 471.
- and Chaudron, G., recovery of manganous compounds, (P.), B., 785.
- Conrad, F. H., and Jackson, E. W., evaporation by submerged combustion. I. Experimental equipment, B., 944.
- Kobeko, P. P. See Eremeev, M. A.
- Kobel, M. See Neuberg, C.
- Kobosev, N. J., and Sokolov, N. N., preparation and properties of the permolybdates Na<sub>2</sub>MoO<sub>6</sub> and Na<sub>2</sub>MoO<sub>8</sub>, A., 1258.
- Kobzareno, V. S., volumetric determination of total sulphur in coal, B., 132.
- Koch, C. J., preparing hop-flavoured malt extract in powdered form, (P.), B., 167.
- Koch, E. A. J., plant or still for distilling water or other liquids, (P.), B., 769.
- Koch, F. See Bergius, F., and Holzhydrolyse A-G.
- Koch, H., and Küster, H., catalytic reduction of carbon dioxide by hydrogen, B., 737.
- See also Fischer, Franz.
- Koch, H. E., Lowe, M., and Hevi Duty Electric Co., heat treatment system [for metal articles], (P.), B., 712.
- Koch, R., yeast growth in absence of oxygen, A., 750.
- Koch, S. O. See Koch, T.
- Koch, T., and Koch, S. O., bacteriological examination of milk and its use in practical milk control, B., 1079.
- Koch, W. See Röntgen, P.
- Koch, W., specific heat of superheated water vapour for pressures of 120—200 atmospheres and for saturation temperatures up to 450°, A., 16. Thermal state of superheated steam at high pressures, A., 117. Behaviour of water in the critical region, A., 217.
- Koch, Werner. See Weber, H. H.
- Kochhar, B. D. See Rây, J. N.
- Kocour, C., drawing compound [lubricant], etc., (P.), B., 695.
- Koczorowska, W. See Dziewoński, K.
- Kodak, Ltd., Beach, N. F., and Gramke, B. E., moisture-proof cellulosic sheeting, (P.), B., 621.
- and Brooker, L. G. S., cyanine dyes and their application in photography; sensitising of photographic emulsions, (P.), B., 183. Carbocyanine dyes [photographic sensitisers], (P.), B., 858. Sensitisation of photographic emulsions, (P.), B., 893.
- Capstaff, J. G., and Seymour, M. W., colour photography, (P.), B., 333.
- Clarke, H. T., and Malm, C. J., cellulose esters, (P.), B., 1051. [Cellulose ester] plastic materials, (P.), B., 1069.
- and Hartman, W. W., dehydration of aqueous acetic acid, (P.), B., 139.
- and Hickman, K. C. D., recovery of silver from photographic fixing baths, (P.), B., 44. Lubricants, (P.), B., 1046.
- and Jelley, E. E., photographic films and plates, (P.), B., 285.
- and Malm, C. J., [higher] cellulose esters, (P.), B., 344.
- Malm, C. J., and Fletcher, C. L., treatment of mixed organic esters of cellulose, (P.), B., 1051.
- Malm, C. J., and Fordyce, C. R., precipitation of cellulose esters, B., 542. Mixed esters of cellulose, (P.), B., 620.
- Kodak, Ltd., Murray, T. F., jun., and Gray, H. Le B., cellulose acetate, (P.), B., 57.
- and Seymour, M. W., photographic relief images, (P.), B., 45. Colour photography, (P.), B., 93.
- Sheppard, S. E., and Vanselow, W., photosensitive materials and production of photographic images thereby, (P.), B., 653.
- Staud, C. J., and Van Dyke, R. H., partially acetylated cellulose, (P.), B., 743.
- and White, F. L., sensitising photographic emulsions, (P.), B., 653. Carbocyanine dyes and intermediate products, (P.), B., 779.
- Kodama, T., methods of migrating filterable viruses by precipitation for the purpose of preventive immunisation. I. Precipitation of vaccine virus by a luminium or ferric hydroxide and the antigenic value of the precipitated virus, A., 1334.
- Kodera, K., and Adachi, K., changes in carbohydrate and gas metabolism of muscle during acidosis, A., 525.
- Koebner, M., constitution of phenol resins, B., 514.
- Köckritz, H. von, ageing of soft steel and of steels of various origins, B., 65.
- Koefoed, Hauberg, Marstrand, & Helweg, Aktieselskabet Titan. See Nyrop, A.
- Kögel, G., sensitivity to light and bactericidal action of fading dyes, A., 319. Sensitivity to light of sexual hormone and chlorophyll, A., 755.
- Kögl, F., auxin; its occurrence in the plant and animal kingdoms, A., 435. Auxins, A., 987.
- Haagen-Smit, A. J., and Erzleben, H., plant growth substances. IV. Phytohormone of cell elongation; isolation of auxin from human urine. V. Phytohormone of cell elongation; chemistry of crystalline auxin. VII. Occurrence of auxins in the human and animal organism, A., 435, 612, 1213.
- Haagen-Smit, A. J., and Tönnis, B., plant growth-substances. VIII. Occurrence of auxins and growth-substances of the "bios" group in carcinomata, A., 1213.
- Köhle, H. See Stock, A.
- Köhler, A., innovations in photomicrography with ultra-violet light, A., 366.
- Köhler, Alexander. See Dittler, E.
- Köhler, Arnold. See Kantorowicz, H.
- Koehler, A. E. See Hill, Elsie.
- Köhler, B. von. See Euler, H. von.
- Köhler, Franz. See Balls, A. K., and Waldschmidt-Leitz, E.
- Köhler, Friedrich, cooking temperatures of [China] wood oil, B., 275. Effect of cooling of [China] wood oil, B., 315.
- Köhler, H. See Weldert, R.
- Köhler, P., and Jürgens, R., iodine content of the blood after inunction of iodine ointment, A., 861.
- Köhler, R. See Loebe, R.
- Köhler, Richard. See Hellmers, J. H.
- Köhler, Rudolf, structure viscosity of dilute amalgams, A., 895.
- See also Gebhardt, F.
- Köhler, S., determination of acidity and copper number of paper, with special reference to Swedish archive paper, B., 1003.
- Kölbl, F. See Hüttig, G. F.

- Kölliker, R. A., thiosulphate solutions of permanent titre, A., 41.
- Koelsch, C. F., indene from  $\beta$ -phenyl- $\alpha$ -bisdiphenyleneallyl alcohol, A., 153.
- 1-Diphenylene-3-phenylindene, A., 1042. Synthesis of 2:3-benzfluorene, A., 1284.
- and Tenenbaum, D., identification of the acyl group in certain esters, A., 964.
- and Ulliot, G. E., triphenylvinyl mercaptan, A., 1158.
- Kölsch, R. See Herzberg, G.
- Koenen, See Lenze, F.
- König, F. See Acker, W.
- König, H., Cotton-Mouton constant of nitrobenzene at the transition point, A., 1104.
- Koenig, P., and Dörr, W., chemistry of tobacco. I, A., 988.
- König, W., magnetic properties of artificially anisotropic substances, A., 890.
- König, Walter, and Kopilowitz, K., water [-in-oil] emulsions of cellulose ester solutions, B., 1018.
- See also Treadwell, W. D.
- Koenig, Wilhelm, and Wirth, W., determination of Reichert-Meissl and Polenske values especially for butter, cheese, and dried milk fats, B., 74.
- Königfeld, G. See Stiasny, E.
- Koenigs, E., and Greiner, H., pyridine derivatives, (P.), B., 140.
- and Jung, G., 4,4'-dipyridylamine and its derivatives, A., 720. N-3-Nitropyridylpyridinium chloride, A., 720.
- Königs, W. See Weltzien, W.
- Koenigsberger, F., and Dehls & Stein, *tert*-butylnaphthol, (P.), B., 220.
- Koenigsberger, J., spontaneous magnetisation and thermo-remance in ferro-magnetic single crystals, A., 14.
- Koens, G. See Saal, R. N. J.
- Köppel, P. See Kunzl, V.
- Köppel, J., Budenheim process of water softening with trisodium phosphate, B., 287.
- Köppen, R., hydrogenating and dehydrogenating efficiency of platinum catalysts in relation to supporting substance and fineness of division of the platinum on the latter, A., 131.
- Köplf, F. See Kohlrausch, K. W. F.
- Körber, F., and Meyer, H. H., reduction of iron oxide by carbon and potassium cyanide at high temperatures, B., 64.
- and Oelsen, W., physico-chemical principles of the metal-slag equilibrium, B., 390. Relations between manganiferous iron and slags containing practically only manganous and ferrous oxides, B., 470.
- and Ploum, H., absorption of hydrogen by iron, A., 457. Absorption of hydrogen by iron in treatment with acids, and behaviour of hydrogen in iron, B., 469.
- and Trömel, G., structure of phosphate slags and its importance for production of basic Thomas slag, B., 831.
- Koerber, I. V. See Burt, C. P.
- Körner, E., variation with pressure of residual ionisation, A., 1101.
- See also Gebhardt, F.
- Körösy, F. von, and Selényi, P., unidirectional layer photo-effect and Einstein's relation, A., 1103.
- Köster, W., ternary system cobalt-chromium-tungsten, A., 670. System iron-nickel-aluminium, A., 1238. System iron-cobalt-aluminium, A., 1239.
- Köster, W., permanent magnet steels on the basis of precipitation-hardening, B., 968.
- and Schmidt, Winfried, system iron-cobalt-manganese, A., 1007.
- and Tonn, W., binary systems cobalt-tungsten and cobalt-molybdenum, A., 344.  $\alpha$ - $\gamma$ -Transformation in ternary systems of iron, A., 1239.
- Kösters, H. See Meitner, (Frl.) L.
- Köstlin, growth of potatoes in acute potash starvation, B., 439.
- Kotschet, P. See Fourneau, E., and Goldstein, H.
- Köttgen, P., determination of easily soluble nutrients by means of direct-current electricity; an aid to ascertaining the fertility of cultivated soils, B., 599.
- Koettnitz, J. P., knocking of motor fuels, B., 819.
- Kötzing, K., nickel carbonyl poisoning, A., 861.
- Kofler, A., and Fischer, R., molecular compound in veramon, A., 74.
- See also Kofler, L.
- Kofler, F., and Schefels, G., circulation of gases over hearth of the Siemens-Martin furnace, B., 469.
- Kofler, L., and Kofler, A., m.p. and crystal forms of morphine, A., 961.
- Kofler, O. See Griengl, F.
- Kofman, T., action of radiations on Liesegang rings, A., 346. Biological applications of semi-conducting photo-electric cells, A., 990.
- Kofrányi, E. See Waldschmidt-Leitz, E.
- Kogan, A. I., preparation of  $\beta$ -naphthol-7-sulphonic acid, A., 499.
- Kogan, I. M., Voronov, A. S., and Lubiteleva, A. Z., condensation of chlorodinitrobenzene with *p*-aminophenol-3:5-disulphonic acid, B., 662.
- Kogerman, P. N., occurrence, nature, and origin of asphaltites in limestone and oil-shale deposits in Estonia, A., 482.
- and Kopwille, J., hydrogenation of Estonian oil shale and shale oil, B., 453.
- Koh, M. L., determination of functional activity of the thyroid by means of urine or serum and investigation of relationship between the thyroid and other endocrine organs, A., 193. Relationship between *Bartonella* anaemia and spleen hormone, A., 301. Determination of functional activity of the thyroid by means of urine or serum. I. Relations between the thyroid and the other endocrine organs. II. Influence of alkaline earths on the function of the thyroid, A., 754, 869, 986.
- "Koh-i-noor" Pencil-Factory L. & C. Hardtmuth. See under Kaufhold, R.
- Kohl, F. See Niklas, H.
- Kobl, J., extraction of glue from glue-containing material, (P.), B., 981.
- Kohler, E. P., and Barnes, C. E., reaction between  $\alpha\beta$ -unsaturated ketones and organic magnesium compounds; unsaturated mesitylenic ketones, A., 395.
- and Brown, F. W., reactions of halogenated ketones. II. Action of potassium cyanide on desyl chloride, A., 1297.
- and Mydans, W. E., reaction between  $\alpha\beta$ -unsaturated ketones and organic magnesium compounds; structure of additive products, A., 160.
- and Nygaard, E. M., autoxidation of ethylene oxides, A., 271.
- Kohler, E. P., and Peterson, W. D., reaction between unsaturated ketones and organic magnesium compounds; secondary products, A., 506.
- and Thompson, D., supposed enolising power of organic magnesium compounds, A., 1163.
- Kohler, M., dynamic reflexion of X-rays at ideal and especially absorbent crystals, A., 1233.
- Kohlhase, A. H., mechanism of reduction of sulphonyl halides by phosphorus tribromide, A., 495.
- Kohlmeyer, E. J., decomposition of metallic sulphides, especially those of antimony, tin, and lead, at high temperatures, A., 134. Non-ferrous metal slags, B., 470.
- See also Kleffner, J.
- Kohlmeyer, J., and Amer. Lurgi Corp., separation of metal mixtures [copper matte and alloys] into their different components, (P.), B., 111. Metallurgical heat treating [of lead products], (P.), B., 235.
- Kohlrausch, K. W. F., calculation of characteristic frequencies of organic chain-molecules by means of models, A., 446.
- and Barnés, D., vibration spectra of the paraffins, A., 7.
- Köplf, F., and Pongratz, A., Raman effect. XXV. Raman spectrum of monobasic organic acids. XXVI. Raman spectrum of methyl and ethyl esters of monobasic fatty acids, A., 661, 1228. Nuclear vibration spectrum of acetylacetone, A., 998.
- and Pongratz, A., Raman effect and problems of constitution. IV. Carbonyl frequencies and molecular constitution, A., 1144. Raman effect. XXVII. Raman spectra of esters of formic and chloroformic acids and of acid chlorides, A., 1229.
- Pongratz, A., and Seka, R., Raman effect and problems of constitution. III. Carboxylic anhydrides, A., 144.
- See also Dadiou, A., and Kopper, H.
- Kohlschütter, H. W., crystal threads and fibrous aggregation forms, A., 14.
- [with Sprenger, L., and Sieke, H.], topochemical transformations. VI. Reactions of crystalline ferric sulphate. I, A., 919.
- and Sieke, H., topochemical transformations. VII. Compact disperse materials, A., 1019.
- Kohlschütter, V. [with Hostettler, H.], principles of the genetic development of material. VII. Conversion of lead oxide into carbonate; chemistry and morphology of white lead, A., 38.
- Kohman, E. F., Eddy, W. H., and Gurin, C. Z., vitamins in canned foods. XIII. Canning tomato juice without vitamin-C loss, B., 650. Canning tomato juice without vitamin-C loss, B., 810.
- and Sanborn, N. H., increased acidity [of prunes] inhibits corrosion, B., 810.
- Kohn. See Hugel, G.
- Kohn, E., and Graeser, E., de-liming of hot-water and steam installations, (P.), B., 207.
- Kohn, H., inversion measurements with spectral lines for determination of total absorption and relative numbers in excited atomic states, A., 108.

- Kohn, H., and Fragstein, K. von, Christiansen filter for ultra-violet light, A., 44.
- and Hubner, H. J., determination of intensity of the members of the principal series of rubidium and caesium, A., 439.
- Kohn, K., and Gruschka, T., bactericide surfaces, (P.), B., 494. Oligodynamic action of metals, B., 990.
- Kohn, R., influence of theocin on action of ephedrine and hypophysis, A., 746.
- and Costopanagiotis, B. C., experimental variation of toxicity of digitalis. I. Influence of hypertonic solutions and of experimental uræmia. II. Combination of *Digitalis* with purine derivatives, A., 422, 632.
- Kohn-Abrest, E., carbon tetrachloride: pyrolysis and analytical procedure, A., 731.
- Kohn-Speyer, A. See Korenchevsky, V.
- Kohnstamm & Co., Inc., H. See Phair, R. A.
- Kohorn, O. von, and Jäger, A., artificial threads, (P.), B., 224.
- Kohorn & Co., O. See under Kohorn, O. von.
- Koidzumi, K. See Katō, Y.
- Koizumi, K. See Ueno, Sei-ichi.
- Kojima, H., changes in composition of the pear during ripening. I. and II., A., 1341.
- Kojima, Kitaro, and Toyabe, Y., chlorinated rubber and its [use for] varnish, B., 757.
- Kojima, Kohei. See Ishino, M.
- Kojima, M., urinary quotients during pregnancy and after parturition, A., 853.
- See also Bickel, A.
- Kojima, N. See Shibata, R.
- Kojima-Kioto, M., effect of thallium on metabolism, A., 423.
- Kok, J. A. See Keesom, W. H.
- Kokas, E. von, and Ludány, G. von, action of condiments on movement of the intestinal villi and glucose absorption, A., 422.
- Kokoski, F. J. See Kertesz, Z. I.
- Koksofenbau & Gasverwertung Akt.-Ges., chamber ovens, (P.), B., 693.
- Kokuryo, T., maltase. I. Blood-maltase. II. Origin of blood- and urine-maltase. III. Conditions for blood-maltase activity. IV. Maltase of human urine, A., 749.
- Koláček, S. See Taufer, J.
- Kolb, H. See Birkenbach, L., and Wagner, Hans.
- Kolb, L. C. See Thompson, Geoffrey.
- Kolbach, P., degradation of protein during mashing of malt, B., 88.
- and Buse, R., determination of colloidal protein in worts by adsorption with active charcoal, B., 842. Protein changes during mashing, B., 984.
- and Haussmann, G., influence of calcium and magnesium sulphate and chloride of brewery water on composition of the wort, B., 681.
- Kolbe, E. A., large-scale production of radium compounds, A., 474.
- Kolesinskas, J. See Peterson, F. C.
- Kolesnikov, A. G. See Luikov, A. V.
- Kolhörster, W., unifying relation for intensity of ionisation in gases, A., 109.
- Hardest cosmic rays and the electric charge of the earth, A., 1100.
- and Tuwim, L., significance of experimental determinations of the mean specific ionisation by cosmic rays from comparison measurements with an ionisation chamber and counter, A., 551.
- Kolitzowska, J. H., reduction of phosphorus tetrachlorobromide and phosphorus pentachloride during their action on menthol and sodium menthoxide, A., 162.
- Kolke, F., viscosity determination with the Ford cup, B., 1. Use of antimony white in paints, B., 354. Rusting below [paint films], B., 471.
- Kolkmeijer, N. H., and Favejee, J. C. L., structure of emulsoid sol particles and their hydration film, A., 1116.
- Kolkwitz, R. See Weldert, R.
- Kollath, A. See Krauss, F.
- Kollath, R., influence of the angular distribution of scattered electrons on the measurement of effective cross-sections, A., 109.
- See also Ramsauer, C.
- Kollath, W., growth and cell-reserves in vitamin investigations. VII. Failure of vitamin-A as a growth-factor. VIII. The unspecific basis of rickets and similar diseases; bones. IX. Cartilage, A., 645, 871. Biological action of vitamins and their sequence, A., 1087. Systematisation of avitaminosis and vitamins, A., 1211. Systematisation and correlation of vitamins, A., 1338.
- Kollek, L. See Straus, F.
- Koller, G., and Pfeiffer, G., glabratric acid, A., 508. Constitution of pinastriac acid, A., 508. Umbilicic and ramalic acids, A., 714. Enzymes of lichens and constitution of umbilicic acid, A., 1216.
- Koller, L. R. See Gen. Electric Co.
- Kolliker, R. A., drawing off and determination of very small quantities of gas, A., 797.
- Kollmann, L., treatment of [viscose] artificial silk crêpe fabrics with caustic alkalis, B., 383.
- Kollmann, T. See Griessbach, R.
- Kollwitz, J. See Dolch, M.
- Kolmer, J. A., bronchial disinfection and immunisation. I. Effect in rabbits of intrabronchial injections of disinfectants, A., 526.
- Kolnitz, H. von, and Remington, R. E., simplified Karns technique for micro-determination of iodine, A., 242.
- See also Levine, H.
- Kolosovski, N. A. See under De Kolosovski, N. A.
- Kolta, E., blood-sugar after administration of alcohol, A., 1327.
- Kolthoff, I. M., bromination of salicylic acid, A., 80. Determination of phenols by bromination, A., 80. Properties of active charcoal reactivated in oxygen at 400°, A., 133.
- and Lingane, J. J., volumetric determination of uranium with potassium dichromate as reagent and application of the method to the indirect titration of minute quantities of sodium, A., 688.
- and Noponen, G. E., diphenylamine-sulphonic acid as a reagent for the colorimetric determination of nitrates, A., 582.
- and Rosenblum, C., specific surface and adsorbent properties of lead sulphate, A., 346. Adsorbent properties and specific surface of lead sulphate, A., 899. Adsorption of ponceau-4R (new-coccine) and methylene blue by lead sulphate and the influence of adsorbed ponceau on the speed of kinetic exchange, A., 899.
- Kolthoff, I. M., and Sandell, E. B., co-precipitation. IV. Co-precipitation of alkali ions with calcium oxalate; adsorbent properties of the latter. V. Co-precipitation of anions with calcium oxalate. VI. Internal structural changes on ageing of freshly prepared precipitates, A., 564, 897. Exchange adsorption and its influence on solubility of precipitates with ionic lattices in electrolyte solutions, A., 671.
- Sandell, E. B., and Moskovitz, B., volumetric determination of nitrates with ferrous sulphate as reducing agent, A., 582.
- and Yutzy, H., nephelometric determination of chloride, A., 686.
- See also Sandell, E. B.
- Komar, N. V., and Kirillova, R. E., volumetric determination of magnesium in salt lake saline, using 2-hydroxyquinoline, B., 747.
- Komarek, G., and Berwind Fuel Co. of Delaware, [fuel] briquettes, (P.), B., 454.
- MacPhail, G., and Coryell, C., briquettes, (P.), B., 850, 902.
- Komarek, K. See Tomiček, O.
- Komarov, F., chemical composition of wood. I. Cellulose content of wood of various origins, A., 812.
- Komarov, S. A., substances which stimulate secretion from the gastric juice of the dog, A., 737.
- Komarova, N. A., volumetric determination of humus in soils, B., 758.
- Komarovski, A. S., Filonova, V. F., and Korenman, I. M., application of sodium salt of *p*-toluenesulphonchloramide ("chloramine") in volumetric analysis, A., 1133.
- and Korenman, I. M., behaviour of zirconium, thorium, and certain rare earths; with 1:2:5:8-tetrahydroxy-anthraquinone, A., 1264.
- and Korenmann, S. M., sensitive test for cerium with phosphomolybdic acid and instances of formation of molybdenum blue in alkaline solution, A., 137.
- Komatsu, S., and Ogata, Y., chemistry of Japanese plants. X. Utilisation of plant ash in chemical industries, B., 85.
- Ozawa, S., and Makino, Y., "maturity" of sugar cane. I. Introduction. II. Chemical life-history of "Hayaue" plant canes. III. Significance of sucrose accumulation. IV. Significance of water. V. Utilisation of solar energy. VI. Changes in chemical composition of cane stalks deprived of leaves, A., 873.
- See also Ozawa, S.
- Komet Kompagnie für Optik, Mechanik, & Elektro-Technik G.m.b.H., treating dry fire-extinguishing powder to prevent caking, (P.), B., 848.
- Komissarov, J. F.,  $\beta$ -chloroethyl esters of sulphurous acid, A., 1274.
- Komm, E., manufacture of a disbittered product of wheat germ, (P.), B., 938. Obtaining high-valued nutrients from products of cerealia and legumens, (P.), B., 938. Treatment of wheat germs, (P.), B., 938.
- Kommes, C. E. See Adkins, H.
- Komppa, G., syntheses in the santene series, A., 70.
- and Beckmann, S., fenchene series. III.  $\gamma$ -Fenchene and  $\beta$ -fenchene hydrate, A., 830.



- Komppa, G., and Hasselström, T., hydrocarbons corresponding with particular camphor-like substances. III. Hydrocarbons from dichlorides of the camphor series, A., 718.
- and Rohrmann, W., semi-micro-determination of carbon and hydrogen according to the method of Orthner and Reichel, A., 731.
- and Talvite, Y., *n*-decyl series, A., 49.
- and Weckman, S., thionaphthen series. III., A., 1050.
- Kon, G. A. R., polycyclic compounds related to sterols. I., A., 1153.
- and Nandi, B. L., derivatives of  $\alpha\alpha'$ -diketoadipic acid, A., 146.
- Kon, S. K., lability of the reducing factor (vitamin-C?) in milk, A., 969.
- and Booth, R. G., vitamin-D activity of butter. I. Chemical differentiation of antirachitic factor of autumn and winter butter from irradiated ergosterol and vitamin-D of cod-liver oil, A., 1089.
- See also Booth, R. G., and Mattick, A. T. R.
- Kon, Y., and Takeda, K., relation between intensity of staining reaction of cell granules and composition of fixing solution, A., 625.
- Konarzewski, J., influence of calcium aluminates and ferrites on the properties of Portland cement, B., 20. Formation of calcium silicates, aluminates, and ferrites in the process of burning Portland cement, B., 20.
- Kondō, M., and Okamura, Tamotsu, relationships between water temperature and growth of rice plants. III. Injurious effect of water temperature on submerged plants, B., 680. Storage of rice. VI. Physical and biochemical studies of hulled rice stored in straw bags. VII. Influence of varying moisture content and germinating power on preservation of vitamin-B in hulled rice. VIII. Hulled rice stored airtight for 26 and 28 years, B., 682. Relationships between temperature and moisture content of rice grain and humidity of the surrounding air, B., 682.
- Kondō, S., and Kawashima, C., electrical melting of glass. II. Reaction temperature of zinc oxide and amorphous carbon or artificial graphite, B., 748. Utilisation of cement dust. I., B., 749.
- and Moteki, K., influence of chromic oxide and alumina on the formation of tricalcium silicate, B., 507. Nature of glass in porcelain body, B., 786.
- Sueno, T., and Yoshida, H., magnesite refractories. I. Microstructure of South Manchurian magnesites fired at different temperatures, B., 670.
- and Wada, S., magnesia content of Portland cement, B., 508.
- and Yamauchi, T., calcium silicates. I. Synthesis, A., 916. Calcium aluminates. III. Microscopical investigation of their hydration. IV. Time of setting and compressive strength, B., 508.
- and Yoshida, H., high-lime Portland cements. I., B., 466. Magnesite refractories. II. Influence of composition on quality, B., 749.
- Kondo, Takeo, photoanisotropic effect (Weigert effect) with dyes. II., A., 35.
- Kondō, Toshio. See Uchida, So.
- Kondo, Y., comparative tests of Japanese and foreign dyes, B., 422.
- Kondorsky, B. See Akulov, N.
- Kondratéev, E. V., action of aluminium chloride on peat-tar oil, B., 210.
- Kondratéev, V., and Jakovleva, A., ultra-violet absorption spectrum of ozone and structure of the ozone molecule, A., 763.
- König, K. See Rüdiger, M.
- Königsberg, J. H., and Standard Rolling Mills, Inc., Britannia metal or pewter alloy, (P.), B., 511.
- Königsberger, V. J. See Collingh, W. E.
- Konishi, K., and Tsuge, T., effect of inorganic constituents of soil solution on growth of *Azotobacter*, B., 759.
- Kono, M., coccids produced in Japan. I. Waxy substances of *Ceroplastes rubens*, Mask. II. Wax of *C. cerifus*, And. III. *C. floridensis*, Comst., A., 876, 1343.
- Kononova, M., oxidation-reduction potentials as a method of characterising conditions of soil under various methods of irrigation, B., 725.
- Konopnicki, A., Ludwiczakówna, R., and Suszko, J., analogies between  $\beta$ -isocinchonine (cinchonigine) and  $\beta$ -isoquinidine, A., 960.
- See also Dubas, T.
- Konovalova, R. A. See Orekhov, A.
- Konrich, F., modern principles and practical application of sterilisation with particular reference to pharmacy, B., 283.
- Konschak, M., determination of air content of high-percentage acetylene, B., 772.
- Konschegg, T., adrenaline, adronals, and blood-pressure, A., 321.
- Konstantov, S. V., yeast as a detector of mitogenetic radiation, A., 1201.
- Kontol Co. See Heckel, H., and Peirce, J. O.
- Koonce, W. E. See Lewis, H. F.
- Kooperativa Förbundet, treatment of frosted or coloured glass, (P.), B., 20.
- Koopman, M., and Turner, N., use of measuring instruments for fuel control in the iron and steel industry, B., 792.
- Koopmans, H. See Pieters, H. A. J.
- Kopeliovitch, E. L. See Charmandarian, M. O.
- Koperina, A. W., tobacco. VII. The resin of tobacco smoke, A., 329.
- Kopetz, V. See Graf, R.
- Kopetzky, S. J., and Fishberg, E. H., changes in distribution ratio of constituents of blood and cerebrospinal fluid in meningitis, A., 1071.
- Kopfermann, H., nuclear moments of the two rubidium isotopes, A., 204. Hyperfine structure and nuclear moment of rubidium, A., 880. Nuclear moment of xenon, A., 1096.
- and Wieth-Knudsen, N., nuclear moment of krypton, A., 880. Hyperfine structure and nuclear moment of krypton, A., 1095.
- Koplowitz, K. See König, Waller.
- Kopp, G. See Schilling, E.
- Kopp, H. M., carburetted water-gas, (P.), B., 613.
- Kopp, P., moulded articles from artificial resins and artificial resin-containing mixes, (P.), B., 1020.
- Koppányi, T., synergism and antagonism of drugs. I. Non-parasympathetic antagonism between atropine and the mitotic alkaloids, A., 184.
- Koppel, R. H., porous rubber, (P.), B., 357.
- Koppentfels, W. von, Stark effect by the perturbation theory, A., 993.
- Koppenhoefer, R. See Moore, E. K.
- Kopper, H., and Pongratz, A., Raman effect. XXIV. Raman spectrum of organic substances (molecules with C:C:X linking), A., 445.
- Seka, R., and Kohlrausch, K. W. F., Raman effect. XXI. Raman spectrum of organic substances (isomeric paraffin derivatives. II.), A., 209.
- Koppers, H., recent developments in coking practice, B., 946.
- Koppers Akt.-Ges., H. See Totzek, F.
- Koppers Co. See Ackeren, J. van, Albright, A. R., Becker, Joseph, Daniels, J., Denig, F., Garrison, C. W., Gollmar, H. A., Hansen, C. J., Jacobson, D. L., Ramsburg, C. J., Schwab, J. W., Shoeld, M., and Sperr, F. W., jun.
- Koppers Co. of Delaware, and Ackeren, J. van, coking retort ovens, (P.), B., 454, 995.
- and Becker, Joseph, gas-purification processes and apparatus therefor, (P.), B., 580.
- Bragg, G. A., Jacobson, D. L., and Wilson, P. J., jun., gas purification, (P.), B., 613.
- and Denig, F., removal of ammonia from fuel gas, (P.), B., 951.
- and Sperr, F. W., jun., removal of ammonia from fuel gas, (P.), B., 774.
- See also Becker, Joseph, Blackwood, O. H., Bryne, J. F., Fulton, R. R., Hansen, C. J., Jones, I. H., Shoeld, M., Sperr, F. W., jun., Tiddy, W., and Ackeren, J. van.
- Koppová, A. See Němec, A.
- Koptev-Dvornikov, V., and Kuznetsov, E., Borsov deposit of corundum, A., 1029.
- Kopuirin, V. I., feeding value of *Artemisia sieversiana* (wormwood), B., 986. Influence of silage from wormwood (*Artemisia sieversiana*) on physico-chemical properties of butter, B., 986.
- See also Denisov, F. I.
- Kopwillen, J. See Kogerman, P. N.
- Koralewski, G. See Bodendorf, K.
- Kořán, V., evaluation of [beet] raw sugars according to their rendement, B., 362.
- Kordes, E., thermodynamics of concentrated solutions. II. Calculation of entire crystallisation curves in binary eutectic systems, A., 26. Substitution of O' by F' in aluminates and silicates, A., 1020.
- Kordowich, F. See May, F.
- Korecký, J., resistance of lacquers towards [liquid] fuel mixtures, B., 1068.
- Koref, F. See Herzog, R. O.
- Korelin, A. I. See Mikulina, N. V.
- Korell, H., pig-fattening trials with fish meals rich in salt and fats, B., 1033.
- Korenchevsky, V., Dennison, M., and Kohn-Speyer, A., changes produced by testicular hormone in normal and castrated rats, A., 643. Assay and absorption of testicular hormone dissolved in oil, A., 870. Influence of testicular hormone on cryptorchid rats, A., 870. Effect of testicular hormone on normal sexually mature rats; method of biological assay, A., 1338. Simultaneous administration of testicular hormone with antuitrin and prolactin or with thyroid, A., 1338.
- Korenev, I. I. See Kurnakov, N. S.

- Korenman, I. M., microchemical reaction of copper salts, A., 42. Microchemical identification of mercury salts and some heavy metals, A., 245. Increased sensitivity of a microchemical reaction for chromium, A., 924. Amyl alcohol, A., 931. [Organic] colour reactions. II., A., 1063. Rivanol [6:9-diamino-2-ethoxyacridine], B., 812. Sensitivity of the iodoform reaction, B., 821.  
See also Komarovskii, A. S.
- Korenmann, S. M. See Komarovskii, A. S.
- Korff, S. A., width of the D lines in sodium vapour, A., 1095.
- Koritta, J. See Quadrát, O.
- Korjagin, S. I. See Tschitschibabin, A. E.
- Kormtshikov, P. A., digestive coefficient of melilot (Bokhara clover) as compared with lucerne, B., 937. Composition and digestibility of silage from wormwood (*Artemisia sieversiana*) in relation to its stage of growth and methods of silage-making, B., 986. Digestibility of clover and lucerne, B., 986.  
See also Denisov, F. I.
- Kornfeld, L. See Wessely, F.
- Kornmann, P., interferometric investigations. IV. Swelling of plane gelatin plates, A., 462.
- Korobkina, I. G. See Selivanov, M. P.
- Korobov, N. See Rajchinshtein, C.
- Korobovkin, V., refining of petroleum, B., 212.
- Korolkov, A. M., properties of nickel-chromium alloys and their manufacture, B., 194.
- Korolyuk, V. Y. See Vanyukov, V. A.
- Korotaev, A., and Ivanov, N., use of alumina from nephelitic rocks for sizing paper, B., 224.
- Korotaeva, M. M. See Sivov, F. K.
- Korotkin, Z. K. See Klimov, B. K.
- Korotkiy, B. See Weidenhagen, R.
- Korpásky, B. See Bach, I.
- Korpiun, J., and Geldbach, A., delayed relay for thermostats, A., 1134.  
See also Schlötter, M.
- Korsakova, M., mobilisation or organic nitrogen in soil, B., 82.
- Korschan, H. See Maurer, E.
- Korsheniovski, G. A., and Pliushkin, E. Z., chemico-technological tests of cotton fibre at various stages of maturity, B., 185.  
See also Zakoshchikov, A. P.
- Kortengraber, A. See Schenck, R.
- Korth, K., dispersion measurements for potassium bromide and iodide in the infra-red, A., 1001.
- Kortüm, G. See Halban, H. von.
- Korvezee, (Mlle.) A. E., separation of polonium by centrifuging, A., 476.  
and Scheffer, F. E. C., optimum temperatures in exothermic gaseous reactions, A., 572.
- Korzinkina, J. V. See Schultz, V. N.
- Kosaka, H., relations between various physiological phenomena in plants and occurrence of colouring matter in different vegetative organs. IV. Presence of anthocyanin and assimilation in cultivated plants, A., 757.
- Kosaka, T., and Lim, R. K. S., mechanism of inhibition of gastric motility by fat; inhibitory agent from intestinal mucosa, A., 641.
- Koschara, W. See Ellinger, P.
- Koschkin, M. L., importance of ammonia in chlorine consumption of waters. I. II. Mechanism of the action of chlorine with pre-ammoniation, B., 254, 654.
- Kosenko, K. G. See Valiaschko, N. A.
- Koser, S. A., and Saunders, F., fermentation of  $\alpha$ -methyl-D-glucoside by members of the *coli-aërogenes* group, A., 190. Utilisation of substituted sugars by bacteria, A., 639. Fermentation of [structurally] D- and L-arabinose by bacteria, A., 1206.
- Koshal, R. S., and Ahmad, N., variation in properties of cotton fibre in relation to its position on the surface of the seed. I. Fibre-length, -weight, and -strength, B., 55.
- Kosheverova, E. P. See Khelemski, M. Z., and Kukhareenko, I. A.
- Koskowski, W. See Dadlez, J.
- Koslov, V. V., and Nefedova, T. D., wetting agents, B., 581.  
See also Voroshechov, N. N.
- Koslova, N. A. See Ostroshinskaja, G. I.
- Koslowa, A. See Leites, S.
- Kosman, M., and Alichanian, A., diffraction of very rapid electrons, A., 549.
- Kosman, O. M., determination of potassium by the cobaltinitrite method, A., 798.
- Kosmin, N. P., diastatic activity and its relation to baking quality of flour, B., 809. Biochemical characteristics of dough and bread [made] from sprouted grain, B., 1078.
- Kosolapov, G. F. See Bachmetev, E. F.
- Kossel, W., and Eckardt, A., vacuum discharges with internal high-voltage sources, A., 992.
- Kossendey, F. See Zwieg, W.
- Kossovitch, N. See De la Riviére, R. D.
- Kostakov, S., and Slauek, A., glycine treatment of progressive muscular dystrophy; origin of creatine, A., 852. Metabolism studies with glycine in progressive muscular dystrophy, A., 1191.
- Kostelitz, O., and Hüttig, G. F., active oxides. LXI. Catalytic activity of zinc oxide, treated at different high pressures, A., 681.
- Kostenko, A. See Soloviev, N. S.
- Koster, J. See Raalte, A. van.
- Kosterlitz, H., utilisation of galactose in physiological and pathological conditions. I. Technique, A., 295. Liver-glycogenesis without insulin; theory of carbohydrate substitutes, A., 1326.  
and Wedler, H. W., utilisation of galactose in physiological and pathological conditions. II. Utilisation of galactose in diabetes mellitus; galactose as substituent carbohydrate. III. Behaviour of galactose in the depancreatized dog during complete and partial insulin deprivation. IV. Galactose assimilation in the liver, A., 971.
- Kostrak, A. L. See Tschitschenko, V. E.
- Kostromina, A. A. See Pentegov, B. P.
- Kostuilev, N. A., graphical method of calculating blast-furnace charge, B., 308.
- Kostuk, E., polarographic method in chemical analysis, A., 242.
- Kostyal, L., physiology of the tonsils. I., A., 641.  
and Penkert, M., physiology of the tonsils. IV., A., 641.
- Kostylev, G. A. See Kroenig, W.
- Kostyleva, E. E., katapleite from Chibinsky tundra, A., 483.
- Kosugi, T., Umeda, K., Mikami, M., and Tachibana, S., morphological studies of iron metabolism. II., A., 1326.
- Kot'a, J., gravimetric determination of beryllium and thorium [zirconium?] using selenious acid, and its application to their separation from certain elements, A., 478, 688.
- Kotake, M., and Mitsuwa, T., constitution of strychnine. I., A., 1061.
- Taguchi, K., and Okamoto, T., saponin series. IV. Saponin of *Fatsia japonica*, A., 830.
- Kotake, Y., intermediary metabolism of tryptophan. XVII. (a) Modification of halogen reaction of tryptophan, A., 308.  
and Kawase, M., intermediary metabolism of tryptophan. XIII. Determination of kynurenine in urine and the form of excretion of kynurenine, A., 308.  
and Nishigaki, M., *am*-hexose which occurs in the organism, A., 378. Vitamosazone, A., 1213.  
and Otani, S. [with Kawase, M.], intermediary metabolism of tryptophan. XII. Mechanism of anthranilic acid formation from tryptophan by micro-organisms, A., 308.
- Koth, A. W., and Lavine, I., development of Dakota lignite. IX. Effect of inorganic materials on low-temperature carbonisation of lignite. X. Effect of inorganic materials on reactivity of low-temperature lignite char, B., 372, 530.
- Kothny, H. See Fuchs, Walter.
- Kotikoff, J. A., mineral content of blood of children in the first year of life, A., 1316.
- Kotomin-Budarin, F. A. See Kurnakov, N. S.
- Koton, M. M., catalytic decomposition of organo-metallic compounds. III. Catalytic decomposition of organic compounds of lead and tin, A., 1178.  
See also Razuvaiev, G. A.
- Kotov, V. I., experimental agglomeration of Chiatursk manganese ore, B., 391.
- Kotovskii, L. V., saccharification of wood by means of dilute sulphuric acid, B., 807.
- Kotschneff, N. P. See London, E. S.
- Kotsehneva, M. P. See Sivov, F. K.
- Kotschopoulos, M. See Braun, W.
- Kott, A. E. See Johnson, Warren C.
- Kotzebue, M. H., still for separating absorption oil from gasoline, (P.), B., 215.
- Kotzmann, L., relation between physical properties and nature of absorbed bases in the soil, B., 932.  
See also Di Gléria, J.
- Kovács, L. von T., multiplication and respiration of soil bacteria in presence of protozoa, A., 191.
- Kovacz, S. See Lünig, O.
- Koval, P. Z. [with Jasnogorodski, I. Z., and Alexandrovitch, Z. L.], decantation and filtration, with subsequent washing of sludge, in preparation of ammonium sulphate from Artemov gypsum, B., 304.
- Kovalev, T. G., and Illarionov, V. V., dielectric properties of fatty oils, B., 236. Dielectric properties of essential oils in relation to their constitution and composition, B., 250. Dielectric constants of naphtha products, B., 738.
- Kovaleva, L. J. See Belenki, M. S.
- Kovda, V. A., principles of soil classification, A., 484. Influence of adsorbed sodium on leaching of carbonate soils, B., 34.

- Kowalezyk, L., heat of synthesis of ammonia as a function of temperature and pressure, A., 1247.
- Kowalski, G. See Drees, K.
- Kowalski, I. See Wertyporoch, E.
- Kowalzyk, H., *in vitro* experiments on the osmosis of aluminium through various artificial and animal membranes, A., 1243.
- Kowarski, L., movement of liquid drops on growing crystals, A., 557.
- Koyanagi, H. See Tsujimoto, M.
- Koyanagi, K., modification and calibration of Köhl's sedimentation apparatus; its use in determining granular composition of cement, B., 47. Hydration of alumina cement. I, B., 508. Effect of calcium hydroxide on hydration of alumina fused cements, B., 1010.
- and Arai, T., deterioration of coal for firing cement on drying and grinding, B., 451.
- and Satō, J., determination of the granular composition of Portland cement, using sedimentation apparatus. I. and II., B., 428.
- Kozacki, A. P. See Fuson, R. C.
- Kozakevitch, N. S. See Kozakevitch, P. P.
- Kozakevitch, P. P., and Kozakevitch, N. S., surface tension and complex formation in non-aqueous solutions of salts, A., 1114.
- Kozaki, S. See Kubota, J.
- Kozawa, S., Iwatsuru, R., and Adachi, T., urinary protein, A., 740. Reaction of Rivalta, A., 968.
- Kozelka, F. L., Hart, E. B., and Bohstedt, G., growth, reproduction, and lactation in absence of the parathyroid glands, A., 741.
- Kozeny, J., soil permeability, B., 359.
- Kozhin, V. I., compositions and properties of organic substances of the soil under a pine stand of the Okhten forest, B., 118.
- Kozik, S., diamminozinc bromide; crystallographic study, A., 448.
- Kozlov, V. P., process of solonetz formation in the Golodnaya Steppe, Turkestan, B., 515.
- Kozlovskaya, L. See Arbusov, B. A.
- Kozlovski, B. See Galperin, D.
- Kozmin, N. See under Kosmin, N. P.
- Kozodoy, M. See Canzanelli, A.
- Kôzu, S., Seto, K., and Tsurumi, S., composition of cancrinite from Dôdô, Korea, A., 252.
- and Takanô, K., crystal structure of cancrinite from Dôdô, Korea. I. and II., A., 558.
- and Tsurumi, S., triangular biotitic phlogophite in basalt from Mutsurê-jima and its chemical composition, A., 928.
- and Ueda, J., thermal expansion of plagioclase, A., 928. Thermal expansion of diopside, A., 1030.
- Ueda, J., and Tsurumi, S., optical and thermal properties of cancrinite from Korea, A., 483.
- and Yoshiki, B., mica basalt from Mutsurê-jima, A., 928.
- Kozu, T. See Yabuta, T.
- Krabbe, W. See Zondek, B.
- Kraeck, F. C., ternary system  $K_2SiO_3-Na_2SiO_3-SiO_2$ , A., 28.
- Bath, T. F. W., and Ksanda, C. J., molecular rotation in the solid state and polymorphic relations of the univalent nitrates, A., 1234.
- Kraemer, E. O., and Lansing, W. D., mol. wt. of linear macro-molecules by ultracentrifugal analysis. I. Polymeric  $\alpha$ -hydroxydecoic acid, A., 1276.
- and Van Natta, F. J., viscosity and mol. wt. of polymeric materials, A., 218.
- Krämer, K. See Ott, Erwin.
- Kraemer, M. H., crucible induction furnaces and their metallurgy, B., 149.
- Kraemer, W., spectral analysis by sensitive lines within the range of the glass spectrograph; spark spectra of high-beryllium- and -nickel-iron alloys, A., 1110.
- Krätschmar, W., rapid determination of density, A., 140.
- Kraft, D., oil-bearing seeds, B., 876.
- Kraft, F. See Ges. für Teerverwertung m.b.H.
- Kraft, G., photochemical behaviour of silver halide emulsions in relation to constitution of new substances used as desensitisers and developers, A., 792.
- See also Embden, G.
- Kraft, K. See Micheel, F.
- Kraft, L. See Criegee, R.
- Kraft, M. J., and Alexeev, B. A., esterification with chloroformic esters, A., 144.
- Krahl, M. E., dependence of crystallisation velocity on molecular structure, A., 558.
- Kraimer, H. See Müller, Robert.
- Krais, P., some difficulties in cotton yarn mercerisation, B., 303.
- and Markert, H., determination of cotton, wool, silk, and artificial silks in mixed textiles, B., 55.
- Krajčinović, M., determination of acetone in mixtures of organic solvents, using hydroxylamine hydrochloride, B., 11.
- and Vranjican, D., products obtained by catalytic reduction of dioximes and acetoxims in acid medium, A., 595.
- Krakovskaja, R. See Gurevitch, V. G.
- Kramer, A., glucosides of *Philyrea latifolia*, L., A., 544. Philyrin and its hydrolysis by emulsin, A., 877. Syringoside from the bark of *Philyrea latifolia*, L., and *P. decora*, L., A., 1093.
- See also Bridel, M.
- Kramer, B. See Sobel, A. E.
- Kramer, B. See Good, C. A.
- Kramer, J. See Backer, H. J.
- Kramer, M. M. See McCammon, R. B.
- Kramer, O. See Stollé, R.
- Kramer, P., carbohydrate metabolism in exophthalmic goitre, A., 180.
- Kramer, R. L. See Du Pont de Nemours & Co., E. I.
- Kramer, W., absorption of penetrating radiation by water and analysis of the absorption function, A., 1101.
- Kramer, W. A. See Nolte, A. G.
- Kramer, Y. M., and Jansen, M., micro-projection in examination of milk sediments, B., 282.
- Kramers, H. A., paramagnetic properties of rare-earth crystals. I. and II., A., 340, 556.
- See also De Haas, W. J., and Engers, E. M. van.
- Kraner, H. M. See Thompson, F. S.
- Kranich, H., refrigeration in liquid soap clarification, B., 75.
- Kranich, E. See Plattner, F.
- Krantz, H., centrifugal extractor, (P.), B., 176.
- Krantz, J. C., jun., buffer capacity of tincture of digitalis, B., 365.
- and Munch, J. C., extraction and  $pH$  of tincture of digitalis, B., 411.
- Reindollar, W. F., and Carr, C. J., assay of nitrogen monoxide, B., 505.
- See also Carr, C. J.
- Kranz, H. See Brass, K.
- Krapohl, E. See Heuser, G.
- Krase, H. J., and Swann Research, Inc., urea and an ammonium salt of a strong mineral acid [ammonium phosphate], (P.), B., 702.
- Krase, N. W. See Holloway, J. H.
- Krasikov, C. E. See Pschenitsin, N. K.
- Krasikov, K. N. See Antipov-Karataiev, I. N.
- Krasilichtsechikov, A. I., solubility of monopotassium phosphate in presence of phosphoric acid, potassium hydroxide, and potassium chloride, A., 1008.
- Krasilnikov, I. I., and Nikiforov, V. N., rational limits of concentration of Ural copper-zinc ores, B., 921.
- Krasilshchikov, B. E. See Mintz, I. B.
- Krasiuk, A. A., and Krasiuk, B. A., radio-activity of the soil air in soils of the podsol zone, A., 484.
- Krasiuk, B. A. See Krasiuk, A. A.
- Krasnikov, A. I., Debye-Scherrer röntgenograms of greatest accuracy, A., 767.
- Krasnitz, A. See Osborn, R. A.
- Krasnow, F., Karshan, M., and Krejci, L. E., determination of calcium and phosphorus in saliva, A., 178.
- and Oblatt, E. B., variation in salivary proteins, A., 1189.
- Krasova, V., isomerides contained in technical chlorodinitrobenzene and their influence on the shade of sulphur black, B., 420.
- See also Kishner, N.
- Krasovski, N., explosion of ethereal extracts, A., 373.
- Krassa, P., sodium hydroxide, (P.), B., 546.
- Krastanov, L. See Kaischev, R.
- Kratky, A., and Bene & Sons, Inc., J., electrolyte for manufacture of hydrogen peroxide, (P.), B., 427.
- Kratky, O., structure of liquid mercury, A., 768. Mechanism of deformation of thread-like substances. I., A., 902.
- and Eckling, K., examination of microscopic crystals with X-rays. III. Micro-X-ray goniometer, A., 139.
- See also Herzog, R. O.
- Kratoville, J. C., and Barrett Co., preparing a waterproofing composition [for building materials], (P.), B., 270.
- Kratsehmer, L., pathological symptoms of potash starvation [in plants], B., 981.
- Kratz, E. M., and Marsene Products Co., composition for making transparent sheet material, (P.), B., 58. Transparent [gelatin] sheet, (P.), B., 515, 826.
- Kratz, H. See Keefer, C. E.
- Kratz, P. D. See Platt, W.
- Krauer, R., jun., determination of phenols plus cresols in creoline and similar products, B., 740.
- Kraul, R. See Schmalzfuss, Hans.
- Kraus, A., modified Storch-Morawski reaction for resins, B., 115. Use of rubber resins in nitrocellulose lacquers, B., 198.
- Kraus, C. A., and Bien, P. B., electrolytic solutions. VIII. Conductance of ternary salts in liquid ammonia, A., 1120.

- Kraus, C. A., and Fuoss, R. M., electrolytic solutions. I. Conductance as influenced by the dielectric constant of the solvent medium, A., 230.
- and Hawes, W. W., electrolytic solutions. V. Conductance of amido-salts in liquid ammonia, A., 907.
- and Johnson, E. G., electrolytic solutions. VII. Conductance of sodium trimethylstannide and of the sodium salts of phenols and thiols in liquid ammonia, A., 1120.
- and Kahler, W. H., electrolytic solutions. VI. Conductance of sodium triphenylstannide, sodium triphenylgermanide, and sodium triphenylmethido in liquid ammonia, A., 1120.
- and Toonder, F. E., chlorination products of gallium trimethyl, A., 599. Gallium trimethyl, gallium trimethyl etherate, and gallium trimethylammine, A., 599. Action of sodium on gallium trimethyl and gallium dimethyl chloride in liquid ammonia, A., 1150.
- See also Fuoss, R. M.
- Kraus, C. E., and Sialco, Inc., plasticising hydraulic cement, (P.), B., 789.
- Kraus, E. J., detection of adulteration of beeswax by ultra-violet light, B., 398.
- Kraus, J. See Edlbacher, S.
- Kraus, L. S., [sewage-sludge digestion at Peoria, Ill., B., 941.
- Kraus, O. See Gossner, B.
- Kraus, W., [resinous] condensation products [of the formaldehyde-urea type], (P.), B., 157.
- Kraus-Ragins, I., rate of ammonia liberation in tryptic and peptic digestion of caseinogen, A., 1081.
- Krause, A., and Garbaczówna, I., silver ferrites. VIII. Orthoferric hydroxide with a side-chain, A., 578. Orthoferric hydroxide with a side-chain, A., 1259.
- Lakosciukówna, H., and Cichowski, J., mechanism of formation of  $\alpha$ -FeO·OH, and the influence of [H<sup>+</sup>] on the ageing of ferric hydroxide orthohydrate at higher temperatures, A., 797.
- and Torno, H., silver ferrites. VII. Structure and quantitative separation of aged ferric hydroxide, A., 474.
- and Tulecki, J., ferrous ferrites. II. Constitution and ferromagnetism of the ferrous ferrites, and autoxidation of ferrous hydroxide, A., 919.
- Krause, A. C., serum-proteins and glaucoma, A., 526.
- Krause, G. See Bistrzycki, A.
- Krause, G. A., sterilisation of liquids [especially drinking water], (P.), B., 126.
- Krause, H., baths for removing nickel, B., 673.
- Krause, K. E., and Rosljakova, E. N., micrography of litharge and red lead, B., 114.
- and Smirnov, N. V., apparatus for testing mechanical strength of paint and lacquer films, and of plastic masses, B., 976.
- Krause, O. See Rosenheim, A.
- Krauskopf, K. B. See Nixon, A. C.
- Krauss, A., determination of acetylene, B., 772.
- Krauss, F., Kleucker, E., and Kollath, A., caffeine content of maté, B., 1081.
- Krauss, F. (Braunschweig), and Berge, K., Eder's solution, A., 792.
- Krauss, Ferdinand, and Schriever, W., research on Portland cement by means of vapour-pressure measurements, B., 467.
- Krauss, F. E., centrifugal washing machine, (P.), B., 336. Centrifuges, (P.), B., 656.
- Krauss, G., foam on beer, B., 327.
- Krauss, W. See Gen. Electric Co.
- Krauss, W. E., nutritive value of milk. I. Deficiencies of an exclusive milk diet, A., 309.
- Bethke, R. M., and Monroe, C. F., effect of feeding irradiated ergosterol to cows on vitamin-D content of milk, A., 177.
- Erb, J. H., and Washburn, R. G., nutritive value of milk. II. Effect of pasteurisation on nutrient properties of milk, A., 529.
- and Hayden, C. C., chemical composition and nutritive properties of milk as affected by the level of protein feeding. II. Nutritive properties, A., 528.
- Kraut, H., and Borkovsky, F., isolation of co-enzyme T of glycolysis from normal tissue, A., 1202. Separation of co-enzyme T and phosphatase, A., 1202.
- See also Frey, E. K.
- Kraut, S. B. See Westinghouse Electric & Manufg. Co.
- Krautschneider, F., modified Heyde testing instruments for asphalt, bitumens, and tars, B., 419.
- Krauz, C., and Majrich, A., influence of fatty acids on chemical stability of smokeless cellulose nitrate powder, B., 894.
- Krauze, S., titrimetric determination of sugars, A., 173.
- See also Fellenberg, T. von.
- Kravkov, S. P., and Simakov, V. N., laboratory investigations of soil processes, B., 401.
- Kravtsoff, G., electrolysis of copper salts of organic acids, A., 913.
- Krawczynski, A. M. See Perret, A.
- Krawczynski, U. See Ruff, O.
- Kraybill, H. A. See Shrewsbury, C. L.
- Kraybill, H. R., Sullivan, J. T., and Miller, L. P., seasonal changes in the composition of Stayman apple trees. I. Carbohydrates, A., 102.
- See also Curtis, P. B., Ford, O. W., and Smith, R. L.
- Krayer, O. See Feldberg, W.
- Krechma, I. J. See Carlsmith, L. E., Edmonds, W. J., and Martin, Jerome.
- Krczil, F., adsorption power of medicinal carbons of animal and vegetable origin, B., 410.
- Krebs, A., repulsion exponents for alkali hydrides, A., 206. Structure of alkali hydride molecules, A., 450. Regularities among hydrides, A., 557. Effect of optical constants on the Mie absorption curve for coloured colloidal systems. I. Silver-water system, A., 777.
- Krebs, G., effect of phosphorus on copper-tin bronzes, B., 151.
- Krebs, H. A., metabolism of amino-acids in animal tissues, A., 856, 1074. Degradation of amino-acids in the animal body, A., 976.
- Krebs, O., benzine recovery from brown coal low-temperature gases by washing with paraffin oil and separating the benzine therefrom by vacuum distillation, B., 209.
- Krebs Pigment & Color Corporation. See Blumenfeld, J., De Rohden, O., Kubin, G., Mayer, M., Moulds, K. S., O'Brien, W. J., Seguire, W., jun., and Taylor, E. A.
- Krech, R., and Wurzschnitt, B., technical red-colouring of rubber goods, B., 317.
- Krech, W., post-operative amino-acid excretion in Graves' disease, A., 1190. Determination of urinary amino-acids in exophthalmic goitre, A., 1322.
- Kreidl, E. See Weyl, W.
- Kreidl, I., white opaque enamels, (P.), B., 787.
- Kreiselheimer, K., magnetic permeability of iron wires in the wave-length range 46—1000 m., A., 768.
- Kreis, W. See Stoll, A.
- Kreitmaier, H., relation between mouse- and rat-unit of the oestrus-producing hormone, A., 430.
- Krejci, L. E. See Krasnow, F.
- Krejci-Graf, K., solution content of surface waters, A., 251.
- Krekeler, H. See Grote, W.
- Krekeler, K. See Buchholtz, H.
- Kremann, R., and Baum, R. [with Lämmermayr, L., jun.], electro-potentials and constitution of gold amalgams, A., 128.
- Griengl, F., and Schreiner, H., internal friction of liquid mixtures of limited miscibility; system olive oil-water, A., 220. Viscosity of mixtures of partly miscible liquids; system phenol-water, A., 456.
- and Lämmermayr, L., jun., electrolysis of aluminium-tin alloys containing iron, as an example of electrolytic purification of molten aluminium from iron, A., 472.
- Pestemer, M., and Bernstein, P., ultra-violet absorption of binary liquid mixtures. I. System acetone-chloroform, A., 207.
- and Riehl, R., ultra-violet absorption of binary liquid mixtures. II. System allylthiocarbimide-piperidine in ethyl alcohol, A., 885.
- Schwarz, E. I., and Le Beau, S., electrolysis of molten binary alloys of aluminium, and solubility of iron in molten aluminium at different temperatures, A., 472.
- See also Lämmermayr, L., jun.
- Kremenezky, J., Schönbauer, C., and Kalocsay, P. von, electron-emitting cathode heated by an auxiliary glow discharge, (P.), B., 113.
- Krenn, J., f.p. and electrical conductivity of milk, B., 443. Detection of goats' milk in cows' milk, B., 489.
- Křepelka, J. H., and Rejha, B., solubility of hydrates of manganous sulphate, A., 456.
- Křepelka, V., determination of constitution of azo-dyes, A., 1286.
- Kreschkov, A. P., phosphate-ferri-phosphate analysis of cations of first, second, and third analytical groups in presence of the anion  $\text{PO}_4^{3-}$ , A., 246. Separation of cations of alkali, alkaline-earth, and ammonium sulphide groups, A., 364.
- and Iljuchin, V. K., gas-volumetric determination of lead dioxide, B., 864.
- Kress, O., [kraft] wood pulp, (P.), B., 544. Marking and production of designs on [kraft or coloured] paper, (P.), B., 862. Producing a white filler product from sulphate-pulp lime mud, (P.), B., 960.

- Kress, O., and Cyr, H. M., use of zinc pigments in paper industry, B., 382.
- and McGregor, G. H., influence of sulphidity on physical and chemical characteristics of kraft pulp, B., 663.
- and Voigtman, F. H., factors influencing chlorination of [unbleached] Mitscherlich [spruce] sulphite pulp, B., 959.
- Kresteff, T. See Hadjioloff, A.
- Krestinski, V., and Baschenova-Koslovskaja, L. I., acetylene series. V. Isomerisation of acetylenic  $\gamma$ -glycols under the influence of formic acid, A., 256.
- Malevskaja, S., and Solodki, F., effect of geographical factors and the type of forests on the turpentines from *Pinus sylvestris*, A., 651.
- and Solodki, F., alcohol fraction of turpentine oil from *Pinus sylvestris*, B., 798.
- Kretschman, C. M. See Carroll, B. H.
- Kretov, A. G., reaction of benzidine with acidic derivatives of selenium and tellurium, A., 292.
- Kretovitch, W., distribution of sugar and nitrogenous substances in wheat grain, A., 1343.
- Kretschmar, G. G., determination of  $e/m$  by photo-electrons excited by X-rays, A., 444.
- Kretschmer, K., [preparation of] sterile beer filters, B., 648. [Beer-]filtration technique, B., 682.
- Kretschmar, A., filter for liquids, (F.), B., 529.
- Kreulen, D. J. W., tendency of coal to spontaneous ignition. IX. and XI., B., 4, 337. Chemistry and technology of solid fuel, B., 131. Combustion. XII., XIII., and XV. "A" and "C" layers of the Tandjoeng-Enim coal deposits, B., 689, 737, 898. Degree of carbonisation; bitumen, B., 690. Formation of artificial bitumen from cellulose without hydrogenation, B., 738.
- [with Graaff, P. van der], tendency of coal to spontaneous ignition. X., B., 256.
- [with Klootwijk, A.], combustion. XIV. "A" and "C" layers of the Tandjoeng-Enim coalfield, B., 848.
- Kreutz, C. D. See Lewis, Bernard.
- Krey, W. See Binapf, J.
- Kreybig, R. von. See Veress, Z. von.
- Kreyger, J., improving sulphitation [of cane juices], B., 120.
- Krider, H. S. See Hidnert, P.
- Kriebel, V. K., and Peiker, A. L., hydrolysis of hydrogen cyanide by acids. II., A., 786.
- Krieg, J. L. See Jacocks, G. T.
- Krieg, K., lupinine, A., 618.
- Krieg, W., and Pflug, H., testing of wood preservatives, B., 1010.
- Krieger, K. A. See Braddock-Rogers, K.
- Krijgsman, B. J., blood-sugar during fasting; determination of blood-sugar with the Pulfrich photometer, A., 845.
- Krilov, E. I. See Mokruschin, S. G.
- Krings, R., preparation of liquid toilet soaps and shampoos, B., 74. Boiling of a soap base for toilet [milled] soap [manufacture], B., 314. Manufacture of the soap base for toilet soap by the boiling process, B., 513. Production of "Kernseifen" [curd and settled soaps], B., 1065.
- Krings, W., and Kehren, E., equilibria between metals and slags in melts. III. Equilibrium  $2\text{MnO} + \text{Si} \rightleftharpoons \text{SiO}_2 + 2\text{Mn}$ , A., 126.
- See also Schackmann, H.
- Kringstad, H. See Hassel, O.
- Krishna, P. G. See Tamhane, V. A.
- Krishna, S., composition for reconditioning wood, abraded spike holes in rail sleepers, or for filling other holes and for similar purposes, (P.), B., 21.
- and Ghose, T. P., actinodaphnine: an alkaloid from *Actinodaphne Hookeri*, Moiss., A., 168.
- and Ramaswami, S., calorific values of Indian woods, B., 451.
- and Varma, B. S., Indian *Artemisia*, B., 524.
- See also Ghose, T. P., and Puntambekar, S. V.
- Krishnamurti, K., mechanism of the swelling of gels, A., 779.
- Krishnan, G. S. R., Eddington's theory and physical constants, A., 5.
- Krishnan, K. S., magnetic constants of benzene, naphthalene, and anthracene molecules, A., 10.
- and Banerjee, S., orientations of molecules in the *p*-benzoquinone crystal, A., 557.
- Chakravarti, N. C., and Banerjee, S., magne-crystalline action. II. Paramagnetics, A., 664.
- and Dasgupta, A. C., pleochroism and birefringence of the  $\text{NO}_3^-$  ion in crystals, A., 1109.
- Guha, B. C., and Banerjee, S., magne-crystalline action. I. Diamagnetics, A., 340.
- and Mitra, S. M., negative polarisation in fluorescence, A., 337.
- and Mukhopadhyay, B., pleochroism and birefringence in crystals, A., 1109.
- Krishnan, T. S., silage investigations at Bangalore. III. Effect of stage of maturity on the ensilage of Jowar. IV. Ensilage of Jowar straw, B., 163, 244.
- Krisman, E. H. See Bridgwater, E. R.
- Kriss, M. See Forbes, E. B.
- Kritschewski, I., and Goldmann, E., equilibria in saturated solutions of  $\text{H}_2\text{O}$ - $\text{KNO}_3$ - $\text{KCl}$ - $\text{K}_2\text{SO}_4$  at  $25^\circ$ , A., 1247.
- and Itzkovitch, R., utilisation of heat of neutralisation for evaporation of ammonium nitrate solution, B., 701.
- Krieger, E. A., and Bednova, M. S., velocity of reaction of halogen-substituted benzene derivatives with sodium methoxide, A., 787.
- Kriukov, P. A., titanometric determination of ferric iron in presence of humic matter, B., 759.
- and Arseevitch, G. P., hydrolysis and oxidation-reduction potential of the system  $\text{Fe}^{+++}$ - $\text{Fe}^{++}$ , A., 909.
- Krivorutshko, N. See Pilojan, A.
- Krivoshchev, S., apparatus for measuring the quantity of acid sprayed in sulphuric acid towers, B., 864.
- Kříža, A., and Pobofil, F., system iron-carbon-silicon, A., 1111.
- Křizenecký, J., and Nevalonny, M., vitamins in fermented and artificial vinegars, B., 1077.
- Krocsák, M., and Schay, G., highly-attenuated flames of potassium vapour with halogens, A., 206.
- Kröger, C., present position of the theory of ammonia catalysis, A., 1018.
- and Fingas, E., action of carbon on alkali carbonates, A., 793. Action of water vapour on alkali carbonates, A., 793. Action of quartz and alkali silicates on alkali carbonates, A., 916.
- See also Neumann, B.
- Kröhnke, F., degradation of methyl and methylene ketones to acids, A., 501. Fission of pyridinium salts and new mode of formation of  $\alpha$ -ketoaldehydes, A., 1169.
- See also Leuchs, H.
- Kröner, W., nephelometric determination of cholesterol, A., 758.
- and Kostylev, G. A., protection of magnesium alloys against corrosion by the pickling process, B., 351. Corrosion of magnesium alloys, B., 710.
- See also Akimov, G. V.
- Krohn, H. See Zondek, B.
- Kroll, Wilhelm, gallium alloys, A., 771. Theory of dependence on pressure of electrical conductivity of metals, A., 1109. Hardened nickel, B., 24.
- See also Siemens & Halske, A.-G.
- Kroll, Wolfgang, theory of the thermoelectric effect at low temperatures, A., 117. Theory of heat conduction at low temperatures, A., 559.
- Krollpfeiffer, F., and Müller, A., anhydro-bases from phenacetylpyridinium halides, A., 615.
- Kronacher, C., Kliesch, J., and Leberl, E., effect of palm-kernel cake on fat content of [cow's] milk, B., 1032.
- Kronig, R. de L., theory of superconductivity. I. and II., A., 15, 335. Optical properties of alkali metals, A., 1097.
- Schaafsma, A., and Peerlkamp, P. K., new type of diffuse molecular spectrum; optical absorption and photochemical decomposition of chromyl chloride vapour, A., 997.
- Kronmann, E., and Berkman, N., microchemical reactions of rhenium, A., 584.
- and Bibikova, V., microchemical detection of rhenium, A., 138.
- Bibikova, V., and Askenova, M., extraction of rhenium from molybdenite, A., 1130.
- Krontovski, A. A., Jazimirska-Krontovska, M. K., and Savitzka, H. P., action of iodo- and bromo-acetic acid on tumours. I., A., 1189.
- Kropa, E. L. See Hill, G. A.
- Krotov, B., Alapaevsk iron ore deposits, A., 1031.
- Krouper, A. See Franke, A.
- Křtinský, K., apparatus for determining properties of dough, B., 408. Testing properties of gluten, B., 842.
- Kruber, O., and Schade, W., mercaptans as gumming agents in motor benzols, B., 418.
- Krüdener, G. von. See Pummerer, R.
- Krügel, C., and Dreyssing, C., further top-dressing trials with superphosphate and basic slag, B., 1026. Are surface applications of superphosphate equal to those incorporated with the soil? B., 1072.
- Dreyssing, C., and Heinz, W., determination of phosphate requirement of soils by Mitscherlich's pot-culturo method, using oats, mustard, buckwheat, western rye grass, and black millet as experimental plants, B., 599.

- Krügel, C., Dreyspring, C., and Kurth, H., influence of phosphate manuring on yield and quality of brewing barley, B., 243.
- Krüger, A., separation of metals of the ammonium sulphide and alkaline-earth groups, A., 1025.
- Krueger, A. P., and Baldwin, D. M., inactivation of bacteriophage by mercuric chloride; reactivation of inactivated phage, A., 1208.
- Krüger, D., structure of cellulose fibres, B., 222. Viscosity measurements with cellulose acetates, B., 781. Microstructure of wood fibres, B., 824.
- Krüger, F., and Gehm, G., dependence of lattice constants and electrical conductivity of electrolytically charged palladium-silver alloys on hydrogen concentration, A., 341. Change of lattice constant and conductivity of palladium by electrolytic charging with hydrogen, A., 341.
- Krueger, G. von. See Lange, Willy.
- Krüger, J., purification of water, (P.), B., 990.
- Krüger, K. H. See Antropoff, A. von.
- Krueger, P. A. See Whitmore, F. C.
- Krueger, R. H., Hamilton, W. F., and Engelhard, Inc., C., [thermal-conductivity] gas-analysis apparatus, (P.), B., 576.
- Oetjen, J. H., and Engelhard, Inc., C., gas-analysis apparatus, (P.), B., 434.
- Krüger, W., Wimmer, G., and Lüdecke, H., [with Grimm, J.], action of various nitrogenous fertilisers on growth and yield of oats with varying soil-moisture contents, B., 883.
- Krüpe. See Terres, E.
- Kruger, P. G., grazing-incidence vacuum spectrograph, A., 480.
- and Gibbs, R. C., structure of arc and spark lines of nitrogen, A., 199.
- and Shoupp, W. E., multiplets in the spectra of O III, O IV, O V, and C III, A., 879.
- and Wagner, R. C., hyperfine structure of beryllium lines, A., 1219.
- See also Gibbs, R. C.
- Kruis, A., and Geffcken, W., rotating chamber for interferometric determination of refractive indices of solutions, A., 1134.
- See also Geffcken, W.
- Kruisheer, C. I., determination of inulin and levulose applied to analysis of coffee substitutes and to question of caramelisation, B., 326.
- Kruizhanovski, V. N., immunising properties of partial antigens from diphtheria bacilli, III., A., 1207.
- Krull, F. B., intensive drying of cylinder oxygen with silica gel, B., 1055.
- Krumholz, G., and Tauschanoff, W., *Mycotorula intermedia*, nov. sp., in fermentation of wine, B., 1030.
- Krumholz, P., complex formation and catalysis. I. Increase of the rate of reduction of molybdic acid by complex formation, A., 575. Colorimetric studies on heteropolymolybdates, A., 580.
- See also Feigl, F.
- Krumins, K., a phosphometer for rapid determination of phosphate requirement [of soils], B., 35. Field methods for determination of reaction and lime requirement of soils, B., 402.
- Krummacker, O., chemical mass-action and protein degradation in the living body, A., 1194.
- Krupkowski, A., mechanical properties of copper. IV. and V., B., 349.
- Krupp Akt.-Ges., F., [high-sulphur] iron and steel alloys, (P.), B., 68. Welding rods [for fusion-deposition of iron-tungsten carbide alloys], (P.), B., 69. [Steel for] homogeneous armour plate, (P.), B., 111. [Steel] vessels for use in carrying out chemical processes [hydrogenation of coal and oil] under high pressures and temperatures, (P.), B., 175. Hardened iron and steel alloy articles, (P.), B., 272. Chromium-nickel steel alloys, (P.), B., 272. Fabrication of corrosion-resistant austenitic steels, (P.), B., 511. Armour plate [steel], (P.), B., 873. Hard alloys [containing tungsten-chromium carbide], (P.), B., 1063.
- See also Fry, A., and Schnebel, E.
- Krupp Grusonwerk Akt.-Ges., F., conveying muddy substances, e.g., thick cement sludge, (P.), B., 176. Distillation processes for production of zinc or similar volatilisable metals, (P.), B., 196. Treatment of ores and similar materials by the flotation method, (P.), B., 234. Distillation of zinc and similar metals, (P.), B., 713. Drying devices for separated coarse material in ball or tube mills, (P.), B., 816. Sintering fine [lead, copper, or iron] ores, etc., (P.), B., 1063.
- and Johlige, H. J., apparatus for sifting or grading discrete materials, (P.), B., 129.
- See also Holzapfel, K. E. E.
- Krupski, A., and Almasy, F., position of the bands in the spectrum of oxyhaemoglobin, A., 965.
- Kruse, D. H., Orent, E. R., and McCollum, E. V., magnesium deficiency in animals. III. Chemical changes in the blood following magnesium deprivation, A., 743.
- Krusekopf, H. H. See Miller, M. F.
- Krustinsons, J., preparation of normal nickel carbonate by Senarmont's method and the formation of solid solutions of nickel chloride in nickel carbonate, A., 581.
- Kruyt, H. R., cellulose from the viewpoint of colloid chemistry, A., 350.
- and Galema, H. P., lyophilic colloids. XVII. Influence of neutral salts on gelatin sols, A., 349.
- See also De Jong, H. G. B.
- Krwawnik, H., determination of tint of malt, B., 648.
- Kryanovski, L. See Nazarevich, S.
- Kryloff. See Boisselet.
- Krynska, H. P. See Witanowski, W. R.
- Kryz, F., amount of sugar which can be extracted from the cut surfaces of sugar beets, B., 324.
- Krzywanek, F. W., and Brüggemann, H., sugar content of the blood of ruminants, A., 734.
- Ksanda, C. J. See Barth, T. F. W., Kracek, F. C., and Tunell, G.
- Ku, Z. W., intensity distribution in a band system of symmetrical triatomic molecules, A., 1101. Absorption spectrum of chlorine dioxide, A., 1102.
- Kuang, L. C. See Wuyts, H.
- Kubareva, A. M. See Schnitz, V. N.
- Kubelka, P. See Schneider, W.
- Kubelka, V., and Némec, V., apparatus for determining water-absorbing capacity of leather, B., 678.
- Némec, V., and Zuraev, S., determination of moisture in leather, B., 881, 932.
- and Samec, V., adsorption and swelling. IV. Influence of temperature on swelling of hide powder, B., 802.
- and Weinberger, E., effect of acids on vegetable-tanned leather. I., B., 319.
- Kubeš, J., humic acid as the cause of electrochemical activity in soil, B., 932.
- Kubiena, W., soil microscope for field and laboratory use, A., 247. Micropedological examination of crystal formation in the pore spaces of soil, A., 1032.
- Kubin, G., and Krebs Pigment & Color Corp., reducing the oil absorption of titanium dioxide pigment, (P.), B., 800.
- Kubota, J., and Kozaki, S., physical properties of raw silk. III. Specific heat of cocoons, raw silk, fibroin, and sericin, B., 910.
- Kubowitz, F., and Haas, Erwin, photochemical methods for investigation of oxygen-transportases (use of acetic acid bacteria and yeast-cells), A., 188. Destruction spectrum of urease, A., 427.
- Kučera, C., cattle poisoning by feeding of rape cake, A., 746.
- and Soos, M., biological value of milk of normal and thyroidectomised goats irradiated by the mercury lamp, A., 1186.
- See also Andrik, L., and Diblicek, B.
- Kuczyński, W., and Weiss, M. H., solubility of metals and technical alloys in aqueous zinc chloride, B., 791.
- Kudar, H. C., quantum theory of latent heat of fusion, A., 117.
- See also Herzog, R. O.
- Kudelya, N. N., and Tugai, I. E., effect of grain size and lime salt content on decolorising effect of bone char, B., 737.
- Kudinova, A. See Vernitz, L.
- Kudrjashov, B. A., avoidance and termination of pregnancy in white rats by means of fission products of fats, A., 422.
- Kudrjatzev, N. A. See Porai-Koschitz, A.
- Kudzin, Y. K., and Shustova, E. N., determination of phosphoric acid requirement of soils, B., 1072.
- Küchlin, A. T., Fenton's reaction, A., 811.
- Kueck, P. D. See Brewer, A. K.
- Kühl, Hans, hardening of Portland cement, B., 467. Hydraulic hardening [of cement] as a surface reaction, B., 467. Formula for determining the optimum lime content of cement, B., 1010.
- and Berchem, H., reaction between alumina cement and water, B., 467.
- Kühl, Hugo, biuret reaction in cereal chemistry, B., 408. Determination of sand in flour, B., 488. Rye and wheat gliadins, B., 521. Nitric acid flocculation reaction for determining the milling grade of wheat flour, B., 601. Diastatic degradation of wheat- and rye-starch in flour, B., 602. Starch production by souring [of grain], B., 841.
- and Czyzewski, B., detection of traces of arsenic in presence of mercury in grain from pickled seed, B., 1074.
- Kühler, E. See Stahl, W.
- Kühles, R. See Fink, H.
- Kühlewein, H. See Auwers, O. von, and Neumann, Hans.



- Kühn, A. See Esser, A.
- Kühn, J., electrochemical behaviour of thallium in sodium hydroxide solution, A., 231.
- Kühn, J. See Căndea, C.
- Kühn, P. See Verein. Stahlwerke A.-G.
- Kühnau, J., vitamin terminology, A., 1087.
- and Stepp, W., vitamins and hormones, A., 1211.
- See also Schmitz, Ernst.
- Kühne, F. See Jaretsky, R.
- Kühne, J., measurements of the rotation spectrum of water vapour, A., 998.
- Kühne, R., ores in the Auerbach marble [Hesse], A., 251.
- Küntzel, A., and Philips, J., action of alkali on collagen. I. Water- and alkali-soluble non-collagen proteins and collagen degradation products. II. Influence of nature and concentration of alkali and state of the collagen on solubility of non-collagen proteins. III. Effect of alkali treatment on insoluble collagen residue, A., 620.
- Küpfert, G., application of concentrating screens to X-ray spectroscopy, A., 767.
- Kürti, L., and Sellei, C., action of uric acid on metabolism of tissues, A., 182.
- Kürti, N., thermal and magnetic behaviour of gadolinium sulphate at liquid helium temperatures, A., 449.
- and Simon, F., calorimetric evidence for a term separation in gadolinium sulphate, A., 343.
- Küspert, K., determination of carbon and hydrogen by the centigram method, A., 292.
- Küster, A., detection of blood in milk by means of benzidine, B., 168. Presence of sporing anaerobes in milk, B., 409.
- and Moog, H., determining the total bacterial count of milk, B., 522.
- Küster, H. See Fischer, Franz, and Koch, H.
- Kuffner, F. See Späth, E.
- Kugel, V. H. See Van Slyke, D. D.
- Kuhbier, F. See Traube, W.
- Kuhl, H. W. See Whitehead, W.
- Kuhl, P. E., and Standard Oil Development Co., apparatus for fractionating liquids, (P.), B., 848.
- See also Nichols, H. J., jun.
- Kuhn, E. M. See Nicholas, H. O.
- Kuhn, H., spectroscopic determination of electron affinities, A., 11.
- and Arrhenius, S., heat of dissociation of the cadmium molecule from thermo-optical measurements, A., 759.
- See also Franck, J.
- Kuhn, R., stability of spatial configurations and the Walden inversion, A., 803.
- and Brockmann, H., hydrogenation and oxidation products of carotene as precursors of vitamin-A, A., 195. A new carotene, A., 278. Flavoxanthin, A., 329. Vitamin of growth. IV.  $\gamma$ -Carotene, A., 431. Rhodoxanthin, the arillus pigment of the yew (*Taxus baccata*), A., 716. Influence of the carotenes on growth, xerophthalmia, cornification, and the oestrous cycle, A., 1212. Semi- $\beta$ -carotenone; method of effecting chemical reactions, A., 1297.
- and Deutsch, A., constitution of azafrin, A., 711.
- Drumm, P. J., Hoffer, M., and Möller, E. F., colour reactions and autoxidation of hydropolycynecarboxylic esters, A., 52.
- Kuhn, R., and Grundmann, C., constitution of lycopene, A., 142.
- György, P., and Wagner-Jauregg, T., new class of natural pigments, A., 298. Ovocoflavin, the pigment of white of egg, A., 522. Lactoflavin, the pigment of milk, A., 847.
- and Hoffer, M., course of hydrogenations with amalgam;  $\beta$ -phenylsorbic acid, A., 1159.
- and Lederer, E., taraxanthin, A., 329. Pigments of the lobster [*Asacus gammarus*, L.] and their parent substance, astacin, A., 509.
- Lederer, E., and Deutsch, A., astacene from the eggs of the spider-crab (*Maja squinado*), A., 1318.
- and Livada, K., influence of side-chains on oxidation processes in the animal body. II. Model experiments on biological degradation of the carotenoid pigments, A., 1325.
- and Loesser, A., determination of iodine, A., 878.
- and Roth, H., micro-determination of acetyl, benzoyl, and C-methyl groups, A., 1179.
- and Wagner-Jauregg, T., flavins isolated from white of egg and milk, A., 1320.
- and Wassermann, A., complex formation and catalysis; highly active intermediate phases, A., 788. Influence of graphite on decomposition of hydrogen peroxide by iron, A., 789.
- and Winterstein, A., reductions with zinc dust in pyridine. I. Reversible hydrogenation and dehydrogenation of cyanine dyes. II. Cyanidin, A., 72, 75. Conjugated double linkings. XXV. Thermal degradation of carotene dyes, A., 145. Carotene dye, sensitive to light, from safran, A., 258. Constitution of  $\beta$ -carotene; 2:6-dimethylnaphthalene from the polyene chain, A., 387. Picrocrocin, the terpene-glucoside of saffron, and biogenesis of carotenoid carboxylic acids, A., 954.
- See also György, P.
- Kuhn, S., soil acidity, B., 118.
- Kuhn, W., simplest principles and laws of optical activity, A., 211. Quantitative significance of viscosity and streaming-double refraction in suspensions, A., 461. Drude's theory of optical activity, A., 556.
- and Bein, K., nature and space extension of scattering moments for optically active molecules, A., 889. Nature and extension in space of scattering moments of optically active molecules, A., 1231.
- and Martin, Hans, possible variation in energy of atomic processes occurring in a small interval of time, A., 548. Photochemical separation of isotopes, A., 550.
- Kuhn, W. C. See Richman, C. T.
- Kuhnen, J., sand drying apparatus, (P.), B., 21.
- Kuhnert, nitrogen manuring of meadows; comparison of "nitrophoska" and some single fertilisers, B., 727.
- Kuk, S. See Fodor, A.
- Kuke, A., influence of time on physiological activity of rye seed and its significance in the seedling method, B., 163.
- Kukharensko, I. A., and Kosheverova, E. P., carbonatation, B., 681.
- Kukuk, P., occurrence of hydrocarbons in Ruhr coal, A., 484.
- Kulikov, I. V., acid oxidation of methylene blue, A., 288.
- and Panova, S. V., colour reactions of nitro-compounds, A., 173.
- and Slstenina, E. A., preparation of glycine, A., 381.
- and Zepalova-Mikhailova, L. A., syntheses of [photographic] developers. I. *p*-Hydroxyphenylglycine, B., 173.
- Kullanda, V. P., composition and concentratability of Khapcherang tin ore deposits, B., 871.
- and Landsberg, K. V., concentration of molybdenum ore from Khibin deposits, B., 871.
- Kulovarskaja, R. M., titration of bivalent tin with potassium chlorate, A., 246.
- Kulp, M., pressure broadening and displacement of spectral lines, A., 108.
- and Binkele, H. E., characteristic structure of hydrogen resonance line  $\lambda$  1216 Å., A., 655.
- Kultzscher, M., biological detoxication of ammonia in higher plants and its relationship to the [H<sup>+</sup>] of cell sap, A., 197.
- Kumani, S., sulphur content of arterial and venous blood of the pancreas, A., 965.
- Kumler, R. W., destructive distillation of [pulp] black liquor, (P.), B., 1004.
- Kumon, T., eggs of gastropods, A., 1184.
- See also Iseki, T.
- Kunashva, K. G., carbon content of the bodies of species of *Acridiidae*, A., 968.
- Kunau, E. See Hedenström, A. von.
- Kunde, M. See Westra, J. J.
- Knng, L. See Rose, M. S.
- Kunitz, M. See Northrop, J. H.
- Kúnos, F. See Millner, T.
- Kunowski, S., detection of barium in human bones, A., 296.
- Kunstmann, H. K., effect on the organism of administration of large amounts of water, A., 858.
- See also Schenck, E. G.
- Kuntze, W., strength of polycrystalline materials, A., 452.
- Kuntziger, J., and Raison, J., electrical furnaces, (P.), B., 396.
- Kunz, J., separation of alkaline-earth and alkali ions, A., 244. Conservation of energy and the impulse in the photo-electric effect, A., 333. Classical distribution of electrons in photo-electric effect with X-rays, A., 333. Separation of potassium and sodium chlorides by means of aniline hydrogen tartrate, A., 478. Quantitative analysis of the hydrogen sulphide group, A., 1133.
- Knze, P., magnetic spectrum of cosmic rays, A., 5. Investigation of cosmic rays in the Wilson chamber, A., 763.
- Kunze, R. See Halden, W.
- Kunze, W. See Berl, E.
- Kunzer, H., aqueous lecithin compositions, (P.), B., 364.
- Kunzl, V., absorption effect in the *M*-series [of tungsten and tantalum], A., 881.
- and Köppel, J., accurate method of measuring lattice constants, A., 450. Lattice constant of a rhombohedral face of quartz, A., 450.
- Kunzmann, T., disinfectant action of potassium and sodium iodides. I., B., 526.
- See also Lockemann, G.

- Kupferberg, J. See Peyinghaus, W.
- Kupský, H., nozzle tube for covering granulated sugar crystals with steam in the centrifugals, B., 807.
- Kuramoto, T., and Yuuki, H., influence of bile acids on phosphorus metabolism. III. Influence of cholic acid, adrenaline, and sympathetic nervous system on blood-phosphate, A., 530.
- Kurano, K. See Sata, N.
- Kurath, F. See Cherry, O. A.
- Kurbatov, I. M., determination of degree of decomposition of peat, B., 1026. Distribution and forms of nitrogen in highmoor peat, B., 1026.
- Kurbatov, S. M., scapolite, zoisite, and secondary albite from the Lampi-Varakka (N. Karelia) pegmatite vein, A., 46.
- Kurchatov, B. V. See Eremeev, M. A., and Zhuse, V.
- Kurchatov, I. V. See Eremeev, M. A.
- Kurdjumov, G. See Danilov, V.
- Kuré, K., Nakaya, T., Murakami, S., and Okinaka, S., hyperadrenalinæmia in essential hypertonia and its treatment with atropine. I. and II., A., 303.
- Kurenova, A. See Ivanova, V. T., and Zakoshchikov, A. P.
- Kurgatov, P. A., mineral soil phosphates, B., 1025.
- Kurie, F. N. D., use of Wilson cloud chamber for measuring range of  $\alpha$ -particles from weak sources, A., 45. Collisions of neutrons with protons, A., 1100.
- and Knopf, G. D., range of  $\alpha$ -particles from thorium by the Wilson chamber, A., 443.
- Kuriyan, K. I. See Ingold, C. K.
- Kurmies, B. See Alten, F.
- Kurnakov, N. S., Beliankin, D. S., and Kotomin-Budarin, F. A., iron borates, A., 1022.
- and Korenev, I. I., ternary alloys of thallium with lead, cadmium, and tin, A., 1008.
- and Nemilov, V. A., alloys of platinum with copper, A., 219. Alloys of platinum with nickel, A., 219.
- and Ravitsch, M. N., ternary system ammonia-nitric anhydride-water, A., 1013.
- and Ronkin, B. L., Lake Elton, A., 1028.
- Kurnosova, P. V. See Finkelstein, V. S.
- Kuroda, (Miss) C., colouring matter of "Awobana," II., A., 614.
- and Wada, Midzu, pigment of "Kuro-mame," A., 544. Colouring matter of Japanese egg-plant (Nasu), A., 651.
- Kuroda, K., micro-determination of water in biological fluids, A., 1094.
- Kuroda, M., tensile properties of copper at low temperature, B., 66. Effect of heat treatment on yield point of mild steel, B., 150. Mechanism of breakdown of steel. III., B., 1059.
- Kurokawa, M., combustion of cokes in a domestic heating stove, B., 736.
- Kurono, K., Katsume, H., and Oki, H., tryptophanase, A., 92.
- Kurosawa, S. See Kamayama, N.
- Kursanov, A. See Oparin, A.
- Kursanov, A. L., influence of carbohydrates on the daily course of photosynthesis, A., 1214.
- Kurtenacker, A., Finger, W., and Hey, F., fluorides of bivalent metals. I. Normal and acid fluorides. II. Behaviour of metal fluorides towards ammonium, potassium, and sodium fluorides, A., 476, 580.
- and Fluss, W., solubility of polythionates. I. Solubility of potassium polythionates, A., 220.
- and Fürstenau, E., action of sulphurous acid on arsenic and antimonious acids, A., 795.
- Kurth, E. F., distribution and nature of extractives in longleaf and shortleaf pine, B., 263.
- See also Sherrard, E. C.
- Kurth, H. See Krügel, C.
- Kurtz, A. C., Sox, H. C., and Manwaring, W. H., protein-crystalloid complex as an antigenic unit, A., 1182.
- Kurtz, F. E., selenium in the determination of phosphorus and nitrogen in phospholipins, A., 965.
- Kurtz, S. S., jun. See Atlantic Refining Co.
- Kurz, E. See Brass, K.
- Kurz, H., and Albert, K., intaglio printing inks, (P.), B., 478, 879.
- Kurz, M. See Borger, G.
- Kurz, T. See Redlich, O.
- Kusaka, S., relation between sugar and cholesterol in blood; influence of insulin, adrenaline, pituitrin, thyroid gland, male genital glands, ovarian function, bile acid salts, glucose, phloridzin, and cholesterol on the amounts of sugar and cholesterol in the blood, A., 521. Influence of fat-soluble vitamin on the amount of cholesterol in the blood in rabbits, A., 542.
- Kusakin, P. S. See Steinberg, S. S.
- Kuschinsky, G., secretion of the thyreotropic hormone of pituitary, A., 754.
- Kuschke, B. M. See Whittemore, M.
- Kuse, M., mercury poisoning. I. Influence of water and Ringer solution. II. Influence of diuretin and theocin, A., 747, 1079.
- Kusner, T. S., interaction of cyclohexene oxide with piperazine and piperidine, A., 723.
- Kusnezova, V. V. See Pletenev, S. A.
- Kuss, E. See Lehrer, E.
- Kusserow, R. E., malting of grain, (P.), B., 985.
- Kussner, W., and Wolff, P., comparative evaluations of ergot. I., B., 571.
- Küthy, A. von, internal structural changes of ovalbumin during denaturation, A., 620.
- Kutscher, F., Müller, Ernst, and Spahr, W., extractives of the embryo of *Acanthias vulgaris*, A., 82.
- See also Flössner, O.
- Kuturir, D. V., and Babichev, B. I., cementation in molten salts, B., 21.
- Kutzelnigg, A., passivity phenomena during solution of copper in a mixture of nitric and sulphuric acids, A., 355.
- and Wagner, W., colloidal aluminium oxide-cupric chloride systems, prepared by the action of alcoholic cupric chloride solution on aluminium, A., 903. Formation of thixotropic ferric oxide gels, A., 903.
- See also Beutel, E., and Halla, F.
- Kutzner, K., shaft drying apparatus, B., 415.
- Kuwabara, G., influence of calcium on cartilage-phosphatase, A., 417. Metabolism of cartilage and callus-tissue, A., 417.
- Kuwata, T., action of Japanese acid clay on terpene compounds. III. Dimerisation of camphene, A., 830.
- Kuyper, A. C., oxidation of citric acid, A., 594. Micro-determination of citric acid by Thunberg's methylene-blue method, A., 731.
- Kuzei, N. See Ueno, Sei-ichi.
- Kuzell, C. R. See Fowler, M. G.
- Kuzin, A. See Stepanov, A. V.
- Kuzin, S. A., determination of frothing properties in flotation reagents, B., 398.
- Kuzmin, G. A. See Laschkarev, V. E.
- Kuzmin, L. L. See Juferev, V. F.
- Kuznetsov, E., detonation in internal-combustion engines and evaluation of anti-knock properties of fuels, B., 498.
- See also Koptev-Dvornikov, V.
- Kuznetsov, V. A. See Lainer, V. I.
- Kuznetsov, V. I. See Malinowski, V. E.
- Kvitner, F. See Sapir, I.
- Kwal, B., trajectories of electrons in a longitudinal magnetic field, A., 441.
- Kwasniewski, W. See Wertyporoch, E.
- Kwasnik, W. See Ruff, O.
- Kwech, R. E., blue-printing, (P.), B., 653.
- Kwei, C. T., and Tao, S. C., dielectric constant of tung oil, B., 927.
- Kwiatkowski, H. See Dressler, E.
- Kyas, O., comparison of Neubauer method with results of cultural trials in Moravia, 1926—1931, B., 934.
- Kydd, D. M. See Peters, J. P.
- Kyriazidis, K. N. See Hahn, M.
- Kyrides, J. P., reaction between acid chlorides and ethers in presence of zinc chloride, A., 486. Condensation of aldehydes with ketones and some of the products derived from the ketols, A., 1037.
- and Nat. Aniline & Chem. Co., acridine dyes, (P.), B., 221. Malachite-green, (P.), B., 618.
- Kyropoulos, S., improved methods of examining mineral oils, B., 292.
- Kyzer, E. D. See Cooper, H. P.

L.

- L.A.B. Co. See Laughlin, W. C.
- L.F.T. Fonderies, blast furnaces and cupola furnaces, (P.), B., 195.
- Laar, J. J. van, compact molecules, A., 11, 339. Equation of the fusion curve, A., 16. Values of  $b$  and  $\sqrt{a}$  for the alkali metals, halogens, and molten alkali halides; determination of critical temperature and pressure from various independent data, A., 560.
- Laban, N. R., nickel plating of zinc-base die-castings at high current density, B., 710.
- La Barre, J., and Ledrut, J., stimulating action on the pancreatic secretion and hypoglycæmic action of secretin, A., 1085.
- and Lorthioir, P., secretion of insulin during irradiation of the pancreatic region, A., 868.
- See also Gunz, E.
- La Bastide, G. L. C. See Wibaut, J. P.
- Labat, J. A., poisoning by sodium fluosilicate, A., 92.
- Labbé, A.,  $\gamma_{\text{H}}$  [of sea-water] and the tides, A., 251.
- Labbé, H., and Rubinstein, M., action of adrenaline on nitrogen metabolism, A., 321.
- See also Donard, E.

- Labbe, M., and Fabrykant, M., phosphorus metabolism in general diseases of the bones, A., 416.
- Nepveux, F., and Gringoire, J.-D., influence of B-vitamins on glycogen and glutathione content of rabbit's liver, A., 1339.
- and Rubinstein, M., action of acetylcholine on respiratory exchange, A., 859. "Action of adrenaline on respiratory exchange, A., 1336.
- Labellarte, F. See Mangini, A.
- Labes, R., and Rutenbeck, H., complex constant of the reaction between novocaine and caffeine, A., 421.
- Laboratoire Français de Chimiothérapie, and Girard, André, sexual hormones from urine, (P.), B., 572.
- Laborde, E., and Duquenois, P., poisoning by veronal, A., 91.
- Labrousse, F., health condition of cultivated plants in relation to their nutrition, A., 437.
- Labruto, G., action of diazomethane on imides. I., A., 815.
- Lacape, and Thomas, solubility of nitrocellulose in mixtures of alcohol and water, B., 573.
- Lacau, R. J., emulsion for surfacing roads, (P.), B., 1057.
- La Cava, G., oligodynamic action of metals on bacteria, A., 641.
- Lacey, B. W. D. See Dunlop Rubber Co.
- Lacey, W. N. See Pomeroy, R. D.
- Lachat, L. L., Halvorson, H. A., and Palmer, L. S., determination of vitamin-D, A., 100.
- Lachman, A., and Richfield Oil Co. of California, treatment of gasoline stock, (P.), B., 740.
- Lachmann, F. See Biltz, H.
- Lacomble, A. E. See Bataafsche Petroleum Maats.
- Lacoss, D. A. See Menzies, A. W. C.
- La Coste, L. J. B. See Colby, M. Y.
- Lacourt, (Mlle.) A. See Wuyts, H.
- Lacroix, A., meteorite (diogenite) of Tataouine, Tunis (June 27, 1931), A., 1028. Stony meteorite which fell in Morocco, on August 22, 1932, A., 1028. Potassic eruptive rocks of western Tonkin, with and without leucite, A., 1268.
- Lacy, B. S., and Roessler & Hasslacher Chem. Co., formamide [from ammonia and carbon monoxide], (P.), B., 227.
- Ladenburg, R., most probable values of the atomic constants,  $e$  and  $h$ , A., 335.
- Levy, S., and Wolfsohn, G., absolute value of transition probabilities in band spectra, A., 1097.
- and Van Voorhis, C. C., continuous absorption of oxygen between 1750 and 1300 Å. and its bearing on the dispersion, A., 439.
- Van Voorhis, C. C., and Boyce, J. C., absorption of oxygen in the region of short wave-lengths, A., 1220.
- and Wolfsohn, G., dispersion of gases and vapours and its representation by the dispersion theory. III. Dispersion of oxygen between 6000 and 1920 Å., A., 10.
- Ladoo, R. B., case for rosin-wax [paper] sizes, B., 301.
- Ladygina, L. V. See Tronov, B. V.
- Lämmermayr, L., jun., electrolysis of molten beryllium-copper alloy with 10% beryllium, A., 472.
- Lämmermayr, L., jun., and Kremann, R., position of gold in the potential series in electrolysis of molten alloys, A., 127.
- See also Kremann, R.
- Längauer, D., reciprocal salt pair  $\text{CoSO}_4 + \text{K}_2\text{Cl}_2 \rightleftharpoons \text{CoCl}_2 + \text{K}_2\text{SO}_4$ , A., 906.
- Laeverenz, P. See Bamann, E., and Schwab, G. M.
- La Face, F., extraction of acid fruit essences, B., 605.
- Lafargue, M., nitrogen and carbon of organic acids of human urine; distribution of urinary carbon, A., 84. Organic acids of human urine; index of acidosis; index of acido-carbonuria, A., 84. Modification of Grimbert and Morel's method for determining free organic acid in urine, A., 300.
- Lafitte, S. See Caujolle, F.
- Lafitte, P., and Picard, H., ignition temperatures of ammonia-air mixtures, A., 678.
- See also Briand, M., Elchardus, E., and Locutz, P.
- Lafitte, E., evaporation and its applications to concentration of industrial liquids, B., 767.
- Lafleur, A. See De Jong, H. G. B.
- La Forge, F. B., rotenone. XXVI. Synthesis of the parent substances of characteristic rotenone derivatives, A., 955.
- Lafrançaise, (Mlle.). See Wolff, R.
- Lafuma, H., hydrated dicalcium aluminate, A., 239. Hydrated hexagonal calcium aluminates, A., 794.
- Lagasse, A. M., and Turnbull, S. G., bleaching of soap stock, (P.), B., 798.
- Latagu, H., and Maume, L., comparative composition of homologous vine leaves taken from fruitful stems and stems deprived of grapes, A., 650. Comparative composition of dry material of homologous leaves of fructiferous and sterile branches of a vine, A., 874. Leaf diagnosis of the potato. II., A., 1092; B., 36.
- Lagneau, C., determination of citral in lemon oil, B., 412.
- Lagneau, E. See Schmidt, I.
- Lagneau, M. F. von. See Schmidt, Jonas.
- Lahiri, T. K. See Bhatnagar, S. S.
- Lai, T. Y., preparation of butinene, A., 1270. Preparation of primary acetylenic alcohols, A., 1272.
- Laibach, F., hormone and growth-promoting substance of pollen, A., 103.
- See also Maschmann, E.
- Laidlaw, P. P. See Smith, W.
- Lainé, P., variation with temperature of magnetic birefringence of liquid oxygen, A., 663. Magnetic properties of liquid ozone, A., 449. Magnetic birefringence of liquid oxygen, A., 556.
- Lainer, V. I., Pletenev, S. A., Kuznetsov, V. A., and Rozov, B. I., electrodeposition of nickel with insoluble anodes, B., 194.
- L'Air Liquide Société Anonyme pour l'Étude et l'Exploitation des Procédés G. Claude, filling and drawing off liquefied gases, (P.), B., 177. Separation of gaseous mixtures, (P.), B., 450. Electrical treatment of liquids having great dielectric strengths, (P.), B., 675.
- Laird, D. A., relative fatigue recovery values of different carbohydrate mixtures, A., 420.
- Laird, W. G., and Heat Treating Co., gas and liquid contact apparatus, (P.), B., 289. Bubbler cap construction, (P.), B., 530. Preventing corrosion in oil-refining equipment, (P.), B., 535. Treatment [cracking of hydrocarbon] oils, (P.), B., 854. Refining of [heavy hydrocarbon] oils, (P.), B., 855.
- Laise, C. A., and Callite Products Co., [tungsten carbide] refractory compositions, (P.), B., 311.
- and Eisler Electric Corp., electrical contact, (P.), B., 835.
- Laissus, J., intermetallic diffusion in metallurgical products, B., 471.
- Lakatos, E. See Fischer, Hans.
- Lake, G. R., and Bailey, J. R., nitrogen compounds in petroleum distillates. VI. Occurrence of 2:8-dimethylquinoline in the crude kerosene distillate of California petroleum, A., 1305.
- Lake Erie Chemical Co. See Goss, B. C.
- Lakeman, A. See Dunlop Rubber Co.
- Lakhovsky, G., filtration and sterilisation of liquids, (P.), B., 96.
- Laki, K., oxidation-reduction potential of ascorbic acid, A., 756. Cytoflav, A., 1318.
- See also Banga, I.
- Lakomkin, I. G., Urbanskaja, O. S., and Olshevskaja, E. D., catalytic oxidation of propyl alcohol, A., 235.
- Lakosciukówna, H. See Krause, A.
- Lakra, C. L. See Bhatnagar, S. S.
- Lal, A. N. See Joshi, Shridhar S.
- Lal, J. B., and Dutt, S., metallic cerium in organic synthesis, A., 267.
- Lalande, A., new cryoscopic method, A., 247. M.p. of mixtures of ethyl alcohol and ether, A., 345. F.p. of mixtures of water, ethyl alcohol, and ethyl ether, A., 782.
- La Lande, W. A., jun., resin. II. Extension of the Liebermann colour reaction for abietic acid, A., 613. Burette with greaseless stopcock, A., 690.
- See also Müller, John Hughes.
- Lallemant, S., diffusion of atmospheric oxygen into oil-covered water; development of eggs of *Rana fusca* and *Triton taeniatus* in mineral oil, A., 417. Cellular toxicity of ethyl alcohol, A., 420.
- Lamar, E. S. See Compton, K. T.
- Lamare, J. P., Larget, M., Darnis, F., and Lecoq, R., hyperglycemia produced by surgical operations, A., 1324.
- Lamb, A. B., detection of methyl chloride [and other gases containing chlorine], (P.), B., 1046.
- Lamb, L. W. See Huffman, C. F.
- Lamb, M. C., and Goldman, L., influence of  $p_H$  on darkening of [pyro]catechol-tanned leather, B., 724. Influence of  $p_H$  in the dyeing of leather, B., 862.
- and Locke, G. M., applying basic dyes to leather, B., 425.
- Lambert, E. B., effect of carbon dioxide on cultivated mushrooms, B., 565.
- Lambert, J. L., examination of banded constituents of three South Wales coal seams, B., 336.
- Lambert, P., and Lecomte, J., infra-red absorption spectra of aliphatic and aromatic hydrocarbons, A., 113. Infra-red absorption spectra of organic compounds containing two chromophores, A., 855. Applications of infra-red absorption spectra to the examination of oils and their constituents (aliphatic hydrocarbons), B., 7.

- Lambert, P. N. See Cunliffe, P. W.  
 Lambourne, J. See Belgrave, W. N. C.  
 Lambrechts, A., spectrographic study of phloridzin and its derivatives; ultra-violet absorption, A., 336.  
 Lambiris, G., new views on coking process of bituminous coals, B., 257.  
 Lambros, G. C. See Fink, C. G.  
 La Mer, V. K., energy of activation, A., 573.  
 and Cowperthwaite, I. A., concentration at which heats of dilution are measured in the calorimetric method; correction, A., 127. Heat of dilution and partial molal heat capacity of zinc sulphate from the e.m.f. of galvanic cells, A., 466.  
 and Downes, H. C., indicator studies of acids and bases in benzene, A., 675.  
 See also Eichelberger, W. C.  
 Lamezan-Salins, M. See Kaufhold, R.  
 Lammeren, J. A. van. See Keesom, W. H.  
 Lamont, D. R., Colgate-Palmolive-Peet Co., and Procter & Gamble Co., production of a soap product, (P.), B., 975.  
 Lamont, F. G. See Newitt, D. M.  
 Lampe, B., evaluation of potato flour, B., 89.  
 Lampitt, L. H., and Bogod, M., acid changes in milk produced by bacteria, A., 737. Chemical standardisation of ice cream, B., 937.  
 and Bushill, J. H., dialysis of milk; distribution of phosphorus, A., 847.  
 and Moran, T., palatability of rapidly frozen meat, B., 570.  
 and Sylvester, N. D., determination of small amounts of aluminium in food, B., 42.  
 Lamprecht, H. See Bünger, H.  
 Lancaster, H. M. See Hind, H. L.  
 Lancaster, W. D. See Hughes & Lancaster.  
 Lance, A. E. See Coulter, T.  
 Lancefield, S., solvent extraction of fish and animal residues, B., 490.  
 Lançon, R. See Fliessinger, N.  
 Landa, S., Čech, J., and Sliva, V., synthesis of  $\delta$ -n-propylnonadecane and  $\epsilon$ -n-butyleicosane, A., 803.  
 and Landová, M., benzene from Hodonin crude oil by hydrogenation under pressure, B., 210, 375.  
 and Macháček, V., adamantane, a new hydrocarbon extracted from petroleum, A., 384.  
 and Sliva, V., preparation of  $\gamma$ -ethyl-octadecane, A., 254.  
 Landau, M. See Mystkowski, E. M.  
 Landauer, W., influence of thyroid gland on relation of temperature to plumage pigmentation, A., 1337.  
 See also Benedict, F. G.  
 Landé, A., neutrons in the nucleus. I. and II., A., 550.  
 Lande, L. M. F. van de. See Wibaut, J. P.  
 Landecker, M., moulding powder and method of moulding, (P.), B., 1020. Manufacture of plastic masses, (P.), B., 1020.  
 Lander, P. E., and Singh, D., availability [for plants] of phosphates in bone meal, B., 243.  
 Landes, K. K., origin and classification of pegmatites, A., 1029.  
 Landes, W. S. See Brit. Celanese.  
 Landis, Q., and Frey, C. N., discussion of the meaning of terms used in cereal chemistry, B., 842.  
 Landon, J., and Crumrine, W. L., hardening and tempering of metal, (P.), B., 712.  
 Landová, M. See Landa, S.  
 Landsberg, K. V. See Kullanda, V. P.  
 Landsteiner, K., and Levine, P., individual differences in chicken blood, A., 1317.  
 and Scheer, J. van der, serological reactions with simple chemical compounds (precipitin reactions), A., 82. Serological differentiation of steric isomerides, A., 1317.  
 Landt, E., active charcoal, A., 37. Thiel's method of absolute colorimetry, A., 689. New Zeiss immersion refractometer [for sugar products], B., 1030.  
 and Knop, W., adsorption displacement and molecular orientation on activated ash-free carbon, A., 121.  
 See also Spengler, O.  
 Landt, G., Becher, H. L., and Agasote Millboard Co., pulp board, (P.), B., 503.  
 Landt, H., and Daum, K., physical characteristics of residues from the small intestine, A., 969.  
 Lane, C. T., diamagnetism of thin films of bismuth, A., 114. Variation of magnetic properties of barium with temperature, A., 890.  
 Lane, E. W. See Saywell, L. G.  
 Lane, M. C., and Gibson, K. E., carbon disulphide as a control for wireworms, B., 119.  
 Lane, N. B., Ennor, W. T., and Aluminum Co. of America, treatment of aluminium alloys, (P.), B., 874.  
 Lane, W. H. See Pilton, F. W. R.  
 Lane, W. T., coal-oil problem, B., 453.  
 Lang, A. See Bierich, R.  
 Lang, F., and Riddell Co., W. A., grinder, (P.), B., 528.  
 Lang, G., photo-electric investigation of the influence of matter on slow electrons, A., 549.  
 Lang, H. R., total heat and specific heat of a series of fractions of petroleum oil, and their relation to other properties (Venezuelan oil fractions). IX. Preparation of samples and determination of their physical properties. XI. Total heat of the fractions, B., 374.  
 and Jessel, R., total heat and specific heat of a series of fractions of petroleum oil, and their relation to other properties (Venezuelan oil fractions). XII. Summary and discussion of results, B., 374.  
 Lang, K., thiocyanate formation in the animal body. I. and II., A., 637, 980. Chemical composition of the urinary protein in albuminuria, A., 851. Determination of thiocyanate in biological material, A., 990. Micro-determination of proline and oxyproline, A., 1064. Physiology, pathology, and pharmacology of blood-magnesium, A., 1065.  
 and Miethke, M., micro-methods in milk analysis. III. Total phosphorus and different phosphate fractions, B., 168.  
 See also Hoppe-Seyler, G., and Stuber, B.  
 Lang, K. C. See Martin, L. H.  
 Lang, K. F. See Hofmann, F.  
 Lang, L. B. & W.-K.-C. [Babcock & Wilcox-Kimberly-Clark] circulating and indirect heating system for the sulphite pulping process, B., 102.  
 Lang, O. See Helferich, B.  
 Lang, R., iodometric determination of zinc by the ferricyanide method, A., 799.  
 and Mück, G., iodometric determination of sodium as sodium zinc uranyl acetate, A., 798.  
 Lang, R., and Reifer, J., iodometric determination of copper, iron, zinc, and aluminium in presence of each other, A., 799.  
 and Zwebina, J., volumetric determination of cerium with arsenious acid, A., 137. Volumetric determination of lead by the nickel dioxide-arsenite process, A., 923.  
 Lang, R. J., and Vestine, E. H., first spark spectrum of antimony, A., 2.  
 Lang, R. T., and Amer. Voith Contact Co., converting liquid paper pulp into a consistent mass suitable for storage, etc., or into bales for shipment, (P.), B., 544.  
 Láng, S., antagonism of insulin and atropine, A., 643.  
 Langauer, D., field of saturation of potassium and sodium chloride in quinary sea-salt systems. I. and II., A., 466, 571.  
 Lange, A. C. See West, Edward S.  
 Lange, B., optical-electric colorimeter, A., 44. Photo-effects in semi-conductors, A., 554.  
 Lange, E., and Hesse, T., so-called heats of transfer ( $Q^*$  values) in Peltier heats, A., 355. Experimental detection of transport heats in electrolytic Peltier heats, A., 785.  
 and Monheim, J., gradation of heat of dilution at great dilution, A., 352.  
 See also Andauer, M.  
 Lange, F., substances regulating circulation and their significance in hypertonus, A., 745.  
 Lange, Hans. See Gen. Aniline Works.  
 Lange, Heinrich, and Wever, F., kinetics of transformation of austenite, B., 708.  
 See also Wever, F.  
 Lange, Jacques. See Fleury, P.  
 Lange, Jörn, individual thermodynamic behaviour of tetra-alkylammonium halides in very dilute solution, A., 905.  
 Lange, N. A., and Sheibley, F. E., quinazolines. IV. Alcoholysis in the quinazoline series and preparation of mixed diethers of quinazoline. V. Partial hydrolysis of 2,4-dialkoxyquinazolines with the formation of 4-keto-2-alkoxy-dihydroquinazolines. VI. Alkylation of benzoylencarbamide [2,4-diketotetrahydroquinazoline], A., 75, 515, 723.  
 Lange, W. (Berlin), farinographs; comparison of curves with the results of baking tests, B., 1031.  
 Lange, William. See Kersten, H.  
 Lange, Willy, existence of the phosphorus hexafluoride ion, A., 26. Action of strong acids on the equilibrium  $\text{H}_3\text{PO}_4 + \text{HF} \rightleftharpoons \text{H}_2\text{PO}_4\text{F} + \text{H}_2\text{O}$ , A., 1014.  
 and Krueger, G. von, [preparation of] copper selenate tetrammine dihydrate [crystals], A., 1257.  
 Lange, W. F., production of an unsaturated compound by *Es. coli* in a synthetic medium, A., 1206.  
 Langecker, H., excretion of citric acid by the rabbit kidney, A., 1194.  
 Langelaan, J. W., determination of oxygen and hydrogen potential in muscle tissue of frog, A., 83.  
 Langen, W., settling tanks for thickening turbid liquids, (P.), B., 130.  
 Langenbeck, W., enzyme models, A., 1201.  
 Hutschenreuter, R., and Rottig, W., organic catalysts. VII. Catalytic actions of iminazole-hemins, A., 92.

- Langenbeck, W., Jüttemann, R., and Helbrung, F., organic catalysts. VI. Preparation of and kinetics of [catalytic decomposition of  $\alpha$ -keto-acids by] derivatives of 3-amino-oxindole, A., 92.
- Langenberg, F. C. See United States Pipe & Foundry Co.
- Langer, A., extraction of iron, (P.), B., 471. See also Dubský, J. V.
- Langer, R., coprosterol and lithobilianic acid, A., 710.
- Langer, R. M., diffusion technique for separation of the isotopes of hydrogen, A., 1265.
- Langer, T. W. See Saxton, B.
- Langeron. See Paget, M.
- Langevin, L. M., comparing stability of [oil] emulsions with variation in the proportion of ingredients, B., 974.
- Langini, A. See Corbellini, A.
- Langley, D. D., Richardson, J. E., and Andes, E. J., effect of storage and canning on vitamin content of carrots, B., 1082.
- Langley, E. L., apparatus for decomposing [electrolysing] water, (P.), B., 475.
- Langley, W. D., Rosenbaum, M. G., and Rosenbaum, M. M., solubility of calcium stearate in solutions containing bile and in water, A., 456.
- Langlois, D. P. See Whitmore, F. C.
- Langmack, P. See Andersen, A. C.
- Langmeier, A., and Hercules Powder Co., dehydration of nitrocellulose, (P.), B., 960.
- Langmuir, I., adsorbed films of caesium on tungsten. I. Space charge sheath and the image force, A., 333. Extension of phase rule for adsorption under equilibrium and non-equilibrium conditions, A., 346.
- and Taylor, J. B., mobility of caesium atoms adsorbed on tungsten, A., 1223.
- See also Taylor, J. B.
- Langseth, A., and Nielsen, J. R., Raman spectrum of carbon dioxide, A., 208.
- Langston, C. I. See Morgan, A. F.
- Langstroth, G. O., scattering of electrons in thin films, A., 549. Perturbations in the barium I spectrum, A., 1219.
- See also Ornstein, L. S.
- Langwell, H., cellulose fermentation, B., 89.
- and Commercial Solvents Corp., fermentation of cellulosic material, (P.), B., 649.
- Youell, J. E., and Brit. Industrial Solvents, Ltd., fluid compositions for fluid pressure systems [e.g., hydraulic brakes], (P.), B., 609. Condensation products of aldehydes and ketones, (P.), B., 661.
- Lanin, V. A. See Klimov, B. K.
- Lansing, W. D. See Kraemer, E. O.
- Lant, R., aqueous emulsions of hydrocarbon oils, (P.), B., 456.
- Lanthony. See Guichard.
- Lantz, E. M. See Smith, M. C.
- Lantz, L. See Manufacture E. Zundel.
- Lantz, V., and Standard Oil Co. of California, alcoholic motor fuel, (P.), B., 695.
- Lanyar, F., Lieb, H., and Verdino, A., excretion of iron in human urine under physiological and pathological conditions, A., 850.
- Lányi, B. See Szarvasy, E.
- Lapeyre, F., criterion of speed of negative emulsions for use in routine work, B., 333.
- Lapicque, C., non-additive effect of radiations of different wave-lengths on cuprous oxide photo-cells, A., 554.
- Lapin, L. N., determination of oxygen required to combine with oxidisable material in blood and to oxidise the intermediate products of metabolism, A., 174.
- and Hein, W. O., colorimetric determination of hydrogen sulphide in water by means of phosphotungstic acid, B., 526.
- Lapkin, I. I., fatty acid content of petroleum, B., 135.
- See also Marko, D. M.
- Laporte, Ltd., B., Weber, I. E., and Slater, V. W., hydrogen peroxide, (P.), B., 465.
- Lapp, C., rotatory power of quinine salts in aqueous solution, A., 618. Polarimetric determination of quinine and its salts, A., 960. Properties of quinine dissolved in absolute alcohol, A., 1114.
- La Que, F. L. See Cox, G. L.
- Laquer, F. See Moll, T., and Schultz, F.
- La Radiotechnique, electronic-discharge tubes, (P.), B., 353.
- Larché, K. See Hanle, W.
- Larget, M. See Lamare, J. P.
- Larin, I. V. See Denisov, F. I.
- Lark-Horowitz, K., and Ferguson, J. E., electrical properties of surface layers, A., 1242.
- Larke, E. C. See Cook, M.
- Larmour, H. M., Pierce, S. C., jun., and Yosemite Portland Cement Corp., clinker heat treatment, (P.), B., 63. Cement, (P.), B., 388. Treatment of cement clinker, (P.), B., 468.
- Larmour, R. K., Malloch, J. G., and Geddes, W. F., effect of winter exposure in the stook on quality of wheat, B., 1078.
- and Sallans, H. R., viscosity of flour-water suspensions in relation to quality, B., 729.
- See also Geddes, W. F., and Treloar, A. E.
- Larmuth, W. O., and Larmuth & Bulmer, Ltd., [machine for] producing welders' electrodes, (P.), B., 396.
- Larmuth & Bulmer, Ltd. See Larmuth, W. O.
- La Rosa, L., colour reaction for magnesium, A., 244.
- La Rotonda, C., physical properties of colloidal clay. II., A., 928. Agricultural use of basic slag, B., 359.
- Larrick, L., Paschen-Back effect of hyperfine structure and the polarisation of resonance radiation: the D lines, A., 1221.
- See also Heydenburg, N. P.
- Larowe-Suzuki Co., manufacture and recovery of glutamic acid and its compounds, (P.), B., 182.
- Larsen, D. See Heyl, F. W.
- Larsen, E. I. See Hensel, F. R.
- Larsen, E. S., and Schaller, W. T., serendibite from Warren County, N.Y., and its paragenesis, A., 928.
- Larsen, L., use of milk and whey in bread-making, B., 602.
- Larson, A. T. See Du Pont de Nemours & Co., E. I.
- Larson, C. See Sundelin, G.
- Larson, C. E., and Greenberg, D. M., paradoxical solubility phenomenon with gelatin, A., 903.
- Larson, R. F. See Straub, F. G.
- Larsson, E., oxidation-reduction potential of the system thioglycolic acid-dithioglycolic acid, A., 572. Dissociation of acids in salt solutions. VI. Dissociation of monohalogeno-fatty acids in sodium chloride and potassium chloride solutions. VII. Dissociation constants and activity functions of hydroxy- and ketonic acids in sodium and potassium chloride solutions, A., 780, 1118.
- Larsson, H. See Euler, H. von, and Myrbäck, K.
- Lasalco, Inc. See Richards, H. J.
- Lasarev, W. See Kallmann, H.
- Lasaris, J. See Briker, F.
- Lasch, F., total carbohydrate content of heart muscle, A., 296.
- Laschkarev, V. E., Bärengarten, E. V., and Kuzmin, G. A., diffraction of slow electrons by graphite crystals, A., 1222.
- and Usyskin, I. D., position of the hydrogen ions in the NH<sub>4</sub>Cl lattice from electron diffraction, A., 1233.
- Laschtschenko, P. N., and Morozova, A. I., Batalpaschinsk (N. Caucasus) salt lake, A., 927.
- Laser, H., metabolism of tissues, A., 1073.
- Lasher, F. G., printing ink, (P.), B., 356.
- Laska. See Bytichin, A.
- Lasker, M., and Enklewitz, M., detection and determination of L-xyloketose in urine, A., 850.
- Laskowski, M., state of combination of calcium in blood-plasma of the hen, A., 623.
- Lasnitzki, A., influence of cations on fermentation power of tumour cells. III. Action of potassium. IV. Action of lithium, A., 1188.
- and Rosenthal, O., influence of cations on fermenting power of tumour cells. II. Potassium, A., 851.
- Lasselle, P. A., and Aston, J. G., conductivity [and density] of sodium iodide solutions at 25° and the limiting conductance of the iodide ion, A., 1015.
- Lasseur, P., Dupaix, A., and Georges, L., fixation of dyes by microbes as a function of pH, A., 866.
- Dupaix, A., and Marchal, J. G., phenomenon of Charrin and Roger (serum agglutination of bacteria), A., 984.
- Laster, R., analysis of mixtures of several sugars by means of Fehling's solution, B., 279.
- Laszlo, D. See Geréb, S.
- László, P. See Graf, R.
- Laszt, L. See Wilbrandt, W.
- Latarjet, R. See Dejaradin, G.
- Lathe, F. E. See Carrie, G. M.
- Lathrop, E. C., Irvine, F. A., and Celotex Co., panel board, (P.), B., 700. Protective treatment of fibre products [against attack by insects and fungi], (P.), B., 743.
- Munroe, T. B., and Celotex Co., protective treatment of fibre products [against attack by insects and fungi], (P.), B., 743.
- See also Munroe, T. B.
- Lathrop, F. H. See Hartzell, A.
- Lathrop, H., and Bell Telephone Labs., insulation of magnetic bodies [e.g., permalloy dust], (P.), B., 314. Insulation of metal bodies, (P.), B., 395.
- Latimer, W. M., Schutz, P. W., and Hicks, J. F. G., jun., heat capacity and entropy of calcium oxalate from 19° to 300° abs.; entropy and free energy of oxalate ion, A., 466.
- See also Libby, W. F.

- Latini, P., condensation of pernitroso-camphor with primary amines, A., 162.
- Latta, F., Killing, E., and Sauerwald, F., non-metallic inclusions in heavy steel forgings, B., 470.
- Latta, R., vapour-heat treatment as applied to control of narcissus pests, B., 119.
- Lau, E., multiplex-echelon gratings, A., 201.
- Reichenheim, O., and Johannesson, J., fine structure and natural width of spectral lines by self-absorption, A., 991.
- and Johannesson, J., optical properties of photographic layers, A., 552.
- Laubender, W., theoretical CO<sub>2</sub> error of the Winterstein micro-electrode for determination of blood-pH measurements, A., 845.
- Laucks, I. F., Davidson, G., and Laueks, Inc., I. F., vegetable glue, (P.), B., 161, 559. Adhesive, (P.), B., 758.
- See also Davidson, G., Eilertsen, L. W., and Greene, F. C.
- Laucks, Inc., I. F. See Davidson, G., Dike, T. W., Eilertsen, L. W., and Laucks, I. F.
- Lauda, E. See Kapeller-Adler, R.
- Lauder, A., chemistry and agriculture, B., 1023.
- Lauderman, V. A., and Champion Coated Paper Co., [satin white] pigment for coated paper, (P.), B., 478.
- Laudon, J. See Smith, L.
- Laue, M. von, explanation of certain results on superconductivity, A., 15. Determination of size of small particles by means of electron diffraction, A., 140.
- Laue, W., detection of milk pasteurised by the holding method, B., 329.
- Lauenstein, O. See Schramm, O.
- Lauenstein, W. See Schramm, O.
- Lauer, B. E., and Youtz, M. A., use of 40-60-mesh sawdust in chemical evaluation of pulpwood, B., 222.
- See also Youtz, M. A.
- Lauer, C. See Brass, K.
- Lauer, G. C. See Bondy, H. F.
- Lauer, F. J., spectroscopic investigation of the explosion zones of methane and other hydrocarbons, A., 661.
- Lauer, K., constitution and reactivity. I. Sulphonation of anthraquinone. II. Replacement of the sulphonic acid group in anthraquinone by hydrogen or chlorine. III. Replacement of sulpho-groups in anthraquinones by the amino-group. IV. Alleged polysulphonation of anthraquinone. V. Nitration and bromination of aminoanthraquinones. VI. Replacement of the sulphonic acid group in chloroanthraquinonesulphonic acids by chlorine. VII. Theory of substitution in anthraquinone, A., 69, 277, 395, 829. Mercury as sulphonation catalyst, A., 1041.
- Lauer, W. M., and Spielman, M. A., thermal decomposition of phenyl vinyl ether, A., 603.
- See also MacDougall, F. H.
- Lauffmann, R. See Stather, F.
- Laughlin, K. C., and Whitmore, F. C., reaction of carboxylic acids with phosphorus pentoxide, A., 49. Trimethylpentanes, A., 803.
- See also Whitmore, F. C., and Wilson, C. D.
- Laughlin, W. C., treatment of sewage, (P.), B., 574.
- and L.A.B. Co., centripetal separator, (P.), B., 816.
- Laukel, A. K., [silvering surfaces of patterns and cores for] electrolytic reproduction, (P.), B., 715.
- Launer, H. F., rôle of gaseous oxygen in thermal reaction between manganic ion and oxalate ion [at 25°], A., 476.
- Launoy, L., determination of toxicity constants and activity of barbituric derivatives, A., 1076.
- Lauprecht, E. See Schmidt, Jonas.
- Laure, Y., explosion pressure of air-benzene mixtures in a closed vessel, A., 356.
- Laurence, G. C.,  $\gamma$ -ray ionisation chamber, A., 4.
- Laurent, E., pneumatic apparatus for separating or sorting solid materials, (P.), B., 416.
- Laurent, P. See Chrétien, A.
- Laurent, Y. See Bierry, H., and Rathery, F.
- Laurie, A., and Poesch, G. H., photoperiodism; value of supplementary illumination and reduction of light on flowering plants in the greenhouse, B., 643.
- Laurie, A. H., adaptations to hydrostatic pressure in whales, A., 844.
- Laurie, A. P., testing of minute quantities of material from pictures and works of art, B., 879.
- Laurie, P., brain-cholesterol and -lipins of mental deficient, A., 628.
- See also Polonovski, Michel.
- Lauritsen, C. C. See Crane, H. R.
- Lauritsen, S. See Dunn, M. S.
- Lauro, M. F., [detection of tea-seed oil in olive oil], B., 513.
- Laury, N. A., and Wiarda & Co., J. C., electrolytic treatment of manganese-bearing material, (P.), B., 675.
- Lauter, A., printing of black and grey reserves under sulphur colours by means of nitrosodimethylaniline, B., 303.
- Lauter, C. J., manufacture of aluminium sulphate at the Dalcemia Filter Plant, Washington, D.C., B., 963.
- Lauter, W. M., Jurist, A. E., and Christiansen, W. G., preparation, toxicity, and absorption of bismuth compounds. I. Salts of fatty acids. II. Salts of aliphatic hydroxy-acids. IV. Compounds of thiolacetic acid. V. Pyrocatechol, pyrogallol, and gallic acid, A., 312, 599, 1046; B., 412.
- Lautseh, W. See Paneth, F.
- Lautz, A., effect of peptic digestibility *in vitro* of artificial feeding as used for American infants, A., 1186.
- Lava, V. G. See Holmes, H. N.
- Lava Crucible Co. of Pittsburgh. See Hanauer, A. M., South, R. P., and White, Harold E.
- Lavagne, J. See Lesure, A.
- Lavallee, J. A. See Westinghouse Electric & Manufg. Co.
- Laves, F., crystal structure of borides of the type MB<sub>6</sub>, A., 891. Relation between co-ordination number and valency electrons in intermetallic compounds, A., 1232.
- See also Blanck, E.
- Laves, G. See Remy, H.
- Laves, W. See Mulli, K.
- Lavin, G. I., Northrop, J. H., and Taylor, H. S., low-temperature absorption spectrum of pepsin, A., 998.
- See also Bates, J. R.
- Lavine, I. See Cooley, A. M., jun., and Koth, A. W.
- Lavine, T. F., and Toennies, G., oxidation of cystine in non-aqueous media. II. Hydration of acetonitrile and acetic anhydride by a non-aqueous titration method, A., 1017. Application of volumetric methods to the study of non-aqueous cystine solutions, A., 1179.
- See also Toennies, G.
- Lavollay, J., symptoms shown by young rats on a diet deficient in magnesium, A., 305.
- Lavrenčič, B. See Samec, M.
- Lavrenenko, M. See Dogadkin, B.
- Lavrov, I. N. See Nikolski, B. P.
- Law, G. H. See Carbide & Carbon Chemicals Corp.
- Law, M., food preserving and natural colour, B., 683.
- Lawall, C. H., and Harrison, J. W. E., Chondrus bleached with sulphur dioxide, B., 171.
- Lawarree, H., alkali nitrates [from nitric acid], (P.), B., 865.
- Lawrason, L. See Girvin, C. W.
- Lawrence, A. E., and Hogan, J. J., Prandtl-Taylor equation, B., 1.
- Lawrence, A. S. C., lyotropic mesomorphism, A., 1108.
- Lawrence, C. G. See Chattaway, F. D.
- Lawrence, E. O., Livingston, M. S., and White, M. G., disintegration of lithium by swiftly-moving protons, A., 1225.
- Lawrence, H. S. See United Water Softeners.
- Lawrence, R. See Buehler, C. A.
- Lawrence, R. D. See McCance, R. A.
- Lawrence, R. E. See Grasselli Chem. Co.
- Lawrence, W. S., and Kaumagraph Co., transferring of designs and transfer composition, (P.), B., 800. Transfer and transfer composition, (P.), B., 1051.
- Lawrence Leather Co., A. C. See Bell, K. E.
- Lawrenz, (Miss) M. See Bishop, (Miss) E. R., and McGhee, J. L.
- Lawrie, J. W. See Du Pont de Nemours & Co., E. I.
- Lawrie, L. G., recent developments in textile finishing, B., 961.
- and Evans, J. G., new stripping agent for coloured rags, B., 824.
- See also Imperial Chem. Industries.
- Lawson, W., determination of inorganic iodine in desiccated thyroid gland, A., 625.
- See also Cook, J. W.
- Lawson, W. E. See Du Pont de Nemours & Co., E. I.
- Lawton, J. J., and Semet-Solvay Co., motor-fuel process, (P.), B., 614. Treatment of [oil-purification] sludge acid, (P.), B., 615.
- Laxa, O., constants of Czechoslovakian butters, B., 90.
- Laybourn, K., and Madgin, W. M., mechanical properties of binary inorganic salt mixtures, A., 119. Liquidus and solidus studies. III. Ternary system Ba(NO<sub>3</sub>)<sub>2</sub>-Ca(NO<sub>3</sub>)<sub>2</sub>-KNO<sub>3</sub>, A., 465.
- See also Freeman, D., and Glass, H. M.
- Layug, G. S., determination of sucrose by double polarisation, B., 88.
- Lazar, A., and Assoc. Oil Co., treatment of hydrocarbon oils, (P.), B., 695.



- Lazar, B., influence of solution concentration on accuracy of the conductometric determination of the ash content of raw [beet] sugars, B., 326.
- Lazarev, A. A., malt residues as fodder, and as a nutrient for the yeast industry, B., 648.
- Lazier, W. A. See Du Pont de Nemours & Co., E. I.
- Lazzell, C. L. See Conn, R. C., and Headlee, A. J. W.
- Lea, C., chemical control of sewage chlorination; o-tolidine test, B., 734.
- Lea, C. H., chemical changes in the fat of frozen and chilled meat. IV. Protective influence of carbon dioxide on the fat of beef stored at 0°. V. Effect of smoking and influence of atmospheric humidity on keeping properties of bacon, B., 169, 248. Action of light on fats, B., 555. Rancidity of oils and fats, B., 1065.
- Lea, F. M., water in set cement, B., 62.
- Lea, H. I., still, (P.), B., 769.
- Leach, R. See Storey, H. H.
- Leach, R. H. See Bassett, W. H.
- Leach, W. See Stiles, W.
- Leagum Corporation of Delaware. See Pierson, W. C.
- Leahy, A., leaching of mineral matter in Alberta soils, B., 118.
- Leahy, F. E., and Youngstown Sheet & Tube Co., [annealing] furnace, (P.), B., 632.
- Leake, C. D., Knoefel, P. K., and Guedel, A. E., anæsthetic action of divinyl oxide on animals, A., 310.  
See also Emerson, G.
- Leamon, W. G., and Leamon Process Co., oil conversion, (P.), B., 295.
- Leamon Process Co. See Leamon, W. G.
- Leaper, J. M. F., and Barrett Co., concentrating [copper sulphide] ores by flotation, (P.), B., 592.  
and Nat. Aniline & Chem. Co., [aralkyl] mercaptans, (P.), B., 261.  
See also Greene, L. W.
- Lease, E. J., and McElvain, S. M., hydroxy- and bromo-esters derived from hydrogenation of  $\omega$ -acetyl esters, A., 376.
- Leask, J. P., Warner, S. T., and Peabody Eng. Corp., regulation of viscosity of liquids, (P.), B., 689.
- Léauté, A., evaporation and oxidation of coal-tar coatings, B., 755. Ageing of coal-tar coatings, B., 1066.
- Leavey, E. W. L. See Shaw, P. E.
- Lebanon Steel Foundry. See Bensing, Le R. P.
- Lebeau, P. See Baxter, G. P.
- Le Beau, S. See Kremann, R.
- Lebedev, A., and Linquist, E., acids of the cranberry [*Vaccinium oxycoccus*], A., 875.
- Lebedev, A. F., relation of water to soil, B., 240. Movement of salts in soils of different moisture contents, B., 1025.
- Leber, (Mlle.) M. See Volmar, Y.
- Leberknight, C. E., infra-red absorption of benzene in the liquid, solid, and vapour states, A., 764.
- Leherl, E. See Kronaether, C., and Leipert, T.
- Le Blanc, F. J. See Brilage, H. M.
- Le Blanc, M., and Eberins, E., gas-volumetric determination of lead dioxide, B., 864.  
and Erler, W., X-ray investigations of the mixed crystal system gold-silver and solvent effect of nitric acid on the system, A., 455.  
and Möbius, E., X-ray study of the system nickel-oxygen-water, A., 1013.
- Le Blanc, M., and Müller, Robert, system nickel oxide-oxygen-water, A., 465.
- Sachse, H., and Schöpel, H., electronic conductivity of the copper oxides, A., 764.
- and Schöpel, H., electrical conductivity measurements of zinc-cadmium and lead-antimony systems, with reference to the establishment of stable equilibrium, A., 1007.
- Lebo, R. B., Fischer, H. G. M., and Standard Oil Development Co., production of sodium sulphhydrate and sodium sulphide, (P.), B., 1008.  
and Standard Oil Development Co., apparatus for countercurrent treatment, (P.), B., 371.  
See also Archibald, F. M.
- Le Boucher, L. See Biltz, W.
- Leboucq, J., solutions of invertase for determination of sucrose, A., 1279.  
See also Bougault, J.
- Le Braz, J. See Dufrasse, C.
- Le Breton, E. See Merklen, P.
- Lebrun, and Radet, nitrogen reserves of soil and their mobilisation in the calcareous soils of Champagne, B., 1071.
- Le Chatelier, H., law of displacement of chemical equilibrium, A., 783.
- Lechler, P., bituminous products, (P.), B., 52. Bituminous emulsions, (P.), B., 580.
- Lechner, F., Raman effect. XX. Theory of valency force system with three mass points, A., 209.  
See also Wessely, F.
- Lechner, R. See Fink, H., and Lüers, H.
- Leclerc, E. See Batta, G.
- Leclerc, J. A., comparative composition of brown and polished rice, and losses in material due to polishing, B., 167.  
Macaroni products, B., 1079.  
See also Capen, R. G.
- Leclercq, L. See Stainier, C.
- Lecocq, G., evolution of coke furnaces since the war, B., 690.
- Lecœuvre, E. See Delbart, G.
- Leeoin, M.,  $\beta$ -radiation of radium-E and of active deposit of actinium, A., 995.
- Lecomte, F., elimination of tartar in boilers, generators, piping, etc., and product therefor, (P.), B., 255.
- Lecomte, G., and Du Pont Rayon Co., lubrication [for reducing electrification] of textile fibres, (P.), B., 303.
- Lecomte, J., infra-red absorption spectra of halogen derivatives of methane, A., 553.  
See also Lambert, P.
- Lecomte, R., edible animal fats; industrial treatment, uses, and economic survey, B., 27.
- Lecoq, H., attempted synthesis of heterocyclic compounds containing antimony or phosphorus in the nucleus, A., 842.
- Lecoq, R., do the B-vitamins influence the utilisation of lipins? A., 99. Role of avitaminosis-B and of alimentary equilibrium in utilisation of lactose by the rat, A., 433. Vitamin-B and assimilation of sugar by the pigeon; comparative action of fructose, glucose, galactose, and various disaccharides in a lipin-rich diet, A., 541. Similarity between avitaminosis-B and -C and certain alimentary disequilibria (carbohydrate and mineral), A., 872. Evolution of total B-avitaminosis in relation to digestibility and nature of dietary protein, A., 872.
- Lecoq, R., and Savare, J., influence of constitution of lipins on evolution of total B-avitaminosis, and generality of need of vitamin-B in utilisation of lipins by the organism of the pigeon, A., 872.  
and Villette, H., lactic bacteria, lactose, and international vitamin-D standard as calcification factors in rachitic rats, A., 1089. Phosphorus and rickets, II. Role of the phosphate ion in antirachitic activity of inorganic phosphorus compounds, A., 1192.  
See also Lamare, J. P.
- Le Coz, L., nickel-chromium steels, B., 1060.
- Ledeber, J. von, effect of iodoacetic acid on reflex activity, gas exchange, and sugar requirement of the central nervous system, A., 311. Acetylcholine contraction of transversely striped muscle after iodoacetic acid poisoning, A., 311. Elimination of carbon dioxide by nerves under reflex stimulation, A., 419.
- Leder-Packendorff, L. See Packendorff, K., and Zelinski, N. D.
- Lederer, A., and Hollingsworth, W. T. P., discharge tube, (P.), B., 434.
- Lederer, E. See Fabre, R., and Kuhn, R.
- Lederer, E. A. See Westinghouse Lamp Co.
- Lederer, E. L., testing the adsorption formula by adsorption measurements with a highly active charcoal, A., 121. Constitution and structure of fatty acids, A., 375. Foaming properties of soap solutions, B., 476.  
[with Hartleb, O.], Prussian-blue hydro-sols, A., 224.
- Lederer, E. R., reactivation of [bleaching] clay, (P.), B., 538.
- Lederer-Ponzer, E. See Graf, R.
- Ledger, C. See Simon, Ltd., H.
- Ledrut, J. See La Barre, J.
- Leduc, A., saturation of lime-containing or lime-treated sugar juices or syrups by gaseous sulphur dioxide or carbon dioxide, (P.), B., 888.
- Leduc, P. See Travers, A.
- Lee, A. R., effect of oxygen pressure on corrosion of steel, B., 193.
- Lee, F. H. See Evans, W. V.
- Lee, G. M. See Cavers, T. W.
- Lee, G. van der, and N. V. Noury & van der Lande's Handelsmaats., enhancing action of per-compounds which are decomposed by catalases on animal or vegetable products, (P.), B., 625.
- Lee, H. C. See Andersen, O.
- Lee, H. H., and Warner, J. C., systems (I.) diphenyl-diphenylamine, (II.) diphenyl-benzophenone, and (III.) benzophenone-diphenylamine, A., 228.
- Lee, I. E. See Du Pont de Nemours & Co., E. I.
- Lee, J. van der. See Verkade, P. E.
- Lee, R. C., use of pump as gas sampler, A., 1136.  
See also Carpenter, T. M.
- Lee, R. H. See Herzfeld, K. F.
- Lee, S. Q., and Amer. Face Brick Research Corp., continuous slab of earthy material, (P.), B., 707.
- Leech, W. J. B. See Gas Light & Coke Co.
- Leeds De-Tinning, Ltd., and Calvert, F., furnace for detinning metal plates, etc., (P.), B., 111.
- Leemans, J., and Soc. Gén. Métall. de Hoboken, metallurgical converters, (P.), B., 233.

- Leendertse, J. J., Tulleners, A. J., and Waterman, H. I., behaviour of pentenes with branched chains towards hydrochloric acid and aluminium chloride at low temperatures; preparation of  $\gamma$ -methyl- $\Delta^2$ -butene, A., 804.
- Leepér, G. W. See Taylor, J.
- Leermakers, J. A., thermal decomposition of ethyl azide: homogeneous unimolecular reaction, A., 910. Thermal decomposition of methyl azide; homogeneous unimolecular reaction, A., 1017. Formation of methyl radicals in the decomposition of azomethane, A., 1039.
- and Dickinson, R. G., photochlorination of tetrachloroethylene in carbon tetrachloride solution, A., 132.
- Lees, A., wave equations and conservation of energy, A., 444.
- Lees, Arnold. See Elsdon, G. D., and Stubbs, J. R.
- Lees, C. H., and Nancarrow, H. A., improvements in use of Lees and Chorlton heat-conductivity apparatus, B., 47.
- Leese, L. F. W., recovery of sulphur [from sulphide ores], (P.), B., 703. Recovery of lead and other metals from sulphide ores, (P.), B., 713.
- Leewills Co., Ltd., treatment of gold ores containing cyanicides [e.g., telluride ores], (P.), B., 311.
- Lefcaditis, G., interfacial relationships between rubber and fillers, B., 800. Multi-form plastometer [for rubber], B., 1022.
- and Cotton, F. H., interfacial relationships between rubber and fillers. I. Tear-resistance of vulcanised rubber, B., 318.
- Lefebvre, V., preparation of compositions containing synthetic resins and soluble alginates, (P.), B., 238.
- See also Imperial Chem. Industries.
- Lefebvre, (Mme.) L. See Chalonge, D.
- Le Fèvre, (Mrs.) C. G., and Le Fèvre, R. J. W., comparison of the directive powers of elements having consecutive atomic numbers. IV. Nitration of 2:4:6-triphenylpyrylium perchlorate, A., 163.
- Le Fèvre, F., post-operative hyperglycaemia, A., 977.
- Le Fèvre, R. J. W., volumes of alkyl groups and their orienting powers, A., 557. Volume effects of alkyl groups in aromatic compounds. I. Influence of 2:6-dinitration on a group  $\cdot\text{CR}_1\text{R}_2\text{Alk}$ . II. Influence of a group  $\cdot\text{CR}_1\text{R}_2\text{Alk}$  on vicinal substitution, A., 1153.
- Markham, P. J., and Pearson, J., nitration of chalkone, A., 611.
- and Pearson, J., preparation of 2-phenylquinoline from phenyl *o*-nitrostyryl ketone, A., 74. Alleged specific test for acetone, A., 377. Comparison of directive powers of elements having consecutive atomic numbers. V. Nitration of 9-phenylxanthylum perchlorate, A., 719. Case of ketonic activity of acetic anhydride and condensation of salicylaldehyde with benzoylacetone, A., 1166.
- and Smith, J. W., dipole moments of quinoline and isoquinoline, A., 9.
- See also Johnston, (Miss) H. E., and Le Fèvre, (Mrs.) C. G.
- Lefèvre, W., euechlorine, A., 1266.
- Leffer, L. G., apparatus for converting hydrocarbons, (P.), B., 214.
- Leffer, M. T., and Brill, H. C., alkamine esters; novocaine analogues. III., A., 281.
- Le Film Ozaphane, photographic diazo-type films and papers, (P.), B., 93.
- Lefouin, M. See Truffaut, G.
- Le Gallic, G. P., lactic acid fermentation; effect of potassium chloride, A., 189. Lactic fermentation, A., 536.
- Legard, A. R. See Moelwyn-Hughes, E. A.
- Le Gavrian, P., Boutet, D., and Bedaux, G., filled tars, B., 658.
- Legendre, R., colorimeter, A., 800.
- Léger, E., scission of aloin, A., 954. Assay of nux vomica preparations, B., 938.
- Legg, D. A., Christensen, L. M., and Commercial Solvents Corp., organic [fatty] acids from cellulosic material, (P.), B., 569.
- Legg, V. E., and Bell Telephone Labs., high-frequency furnace, (P.), B., 474. Refining of copper, (P.), B., 633.
- See also Electrical Research Products, Inc.
- Legg, V. H., gas-air control in open-hearth furnaces, B., 847.
- Legrand, C., and Phelps Dodge Corp., pyrometallurgical process [for smelting copper ores to matte], (P.), B., 235.
- Legrave, M., unusual double sulphate of copper and iron in copper minerals of Katanga: orange bornite or chalmersite (?), A., 483.
- Leguillon, C. W. See Goodrich Co., B. F.
- Le Guyon, R., ultra-filtration in bacteriology, A., 1207.
- Lehalleur, J. P., influence of recent syntheses on development of the explosives industry, B., 285.
- Lehfeldt, W., electrical conductivity of single crystals, A., 1236.
- Lehl, H. See Pietsch, E.
- Lehman, M. R., Thompson, C. D., and Marvel, C. S., quaternary ammonium salts from dimethylhalogenoalkylamines. III. Dimethyl- $\omega$ -bromoheptyl-, -octyl-, -nonyl-, and -decyl-amines, A., 812.
- Lehman, R. S., attractiveness of various aromatic compounds to adults of the wireworms *Limoni* (*Pheltes*) *canus*, Lcc., and *L. californicus*, Mann., B., 119. Experiments with poison baits against wireworms, B., 519.
- Lehmann, E. See Hüttig, G. F.
- Lehmann, G. A. See Dains, F. B.
- Lehmann, H., action of carbon dioxide on human organism and its importance in public health, A., 186.
- and Heller, A., protection of operatives in water-works from injurious effects of calcium hydroxide, B., 125.
- and Reichle, C., death of bacteria in air-free water in relation to water supply, B., 414.
- Lehmann, K., and Hoffmann, E., formation and transformation of coal, A., 370.
- Lehmann, R. See Graf, R.
- Lehmstedt, K., and Zumstein, O., glycosine,  $\text{C}_6\text{H}_8\text{N}_4$ , of Debus. II. Carbon salts of tetranitrodiglyoxalanyl and methylation of nitroglyoxaline, A., 1308.
- Lehn & Fink, Inc. See Klarmann, E.
- Lehr, J. J. See De Boer, J. H.
- Lehrack, O. J., crushing and mixing machine, (P.), B., 897.
- Lehrecke, H., separate recovery of [sodium] aluminium [fluoride] and phosphoric acid from substances containing these constituents, (P.), B., 60.
- See also Metalges. A.-G.
- Lehrer, E., and Kuss, E., improved electromagnetically-operated gas-density balance, A., 249.
- Lehrman, L., precipitation of copper and tin groups using hydrogen sulphide. I. Influence of increasing concentrations of ammonium chloride on the complete precipitation of lead and cadmium sulphides at 0.3N-HCl. II. Metals other than lead and cadmium, A., 364.
- and Kabat, E., absence of fatty acids associated with potato starch, A., 380. Air trap for water lines, A., 1136.
- Kabat, E., and Weisberg, H., organic reagents in qualitative analysis. I. Separation of iron, chromium, and aluminium, A., 1133.
- and Weisberg, H., precipitation of copper and tin groups using hydrogen sulphide. III. Effect of ammonium salts, A., 364.
- Lei, F. S. See Frank, H. S.
- Lei, H. H., and Sah, P. P. T., styphnic acid. II. Bromopicrin, the bromination product of sodium styphnate, A., 1046.
- See also Sah, P. P. T.
- Lei, S. H. See Li, Y. H.
- Leiber, G. See Schwarz, C.
- Leichtbaustoff-Ges.m.b.H., and Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler, production of porous masses and objects, (P.), B., 1010.
- Leick, J., equilibria in interaction of sodium carbonate, sodium hydroxide, calcium hydroxide, and trisodium phosphate with calcium and magnesium sulphates, A., 229. Determination of alkalinity of boiler water, B., 495.
- Leighton, P. A., and Blacet, F. E., photolysis of aliphatic aldehydes. II. Acetaldehyde, A., 682.
- See also Blacet, F. E., and Ogg, R. A., jun.
- Leikola, E. See Kerppola, W.
- Leimu, R. See Palomaa, M. H.
- Lein, S., influence of soil bases on surface area of soil particles, B., 1024.
- Leinert, F. See Bergmann, M.
- Leinzinger, M., absorptive power of charcoal preparations, B., 291.
- Leipert, T., determination of traces of iodine in organic material, A., 878.
- and Leberl, E., histone of bird erythrocytes, A., 1180.
- Leiser, R., concentrating one or more components in liquid systems containing three or more components, (P.), B., 657.
- Leiss, C., self-registering spectrometer, A., 366.
- Leitch, R. H., flavour in milk. I., A., 83. Retardation of lactic fermentation in preparation of cheese, B., 650.
- Leite, A. P., alteration of black uranium mineral from Portugal [by weathering], A., 1031.
- See also Lepierre, C.
- Leites, S., and Isabolinskaja, R., changes in chemistry and secretion of bile under influence of thyroxine, A., 539. Changes in bile chemistry and bile secretion under the influence of certain hormones and vegetable poisons, A., 848.
- and Jussin, W., changes in secretion and composition of bile during aliment-ation, A., 413.
- and Kosłowa, A., changes in bile-calcium and -potassium after aliment-ation, A., 413.

- Leites, S., Koslowa, A., and Jussin, W., spleen and fat metabolism, A., 1325.
- Leitgeb, W., treatment of aluminium shavings with salt slags; systems KCl-NaF, KCl-NaCl-NaF, KCl-CaF<sub>2</sub>, and NaCl-CaF<sub>2</sub>, B., 791.
- Leitmeier, H. See Feigl, F.
- Lejba, S. P., rapid determination of carbon in iron and steel, B., 192.
- Lejeune, F., coloured photographs, (P.), B., 124.
- Lejeune, G., velocities of reduction of ceric and perceric salts by sugars, A., 470.
- Lelwa, A., crystalline hormone from urine of pregnancy. I, A., 194.
- Leko, A., and Vlainsatz, G., 2-*a*- and 2-*β*-pyridylbenzimidazole. II, A., 838.
- Leland, J. See Loeb, R. F.
- Leland Stanford Junior University. See Hanzlik, P. J.
- Lelièvre, R. See Girardet, L. F.
- Lelli, C., industrial production of marine potassium salts by the Niccoli process, B., 1008.
- Leman, A., apparatus for continuous extraction of an aqueous solution by ether, A., 1027.
- Leman, H. S. See Standard Telephones & Cables, Ltd.
- Lemarchands, M., chemical inertia and heterogeneous catalysis, A., 1018.
- and Abramovitch, M., electrodeposition of chromium, B., 833.
- Lematte, L., and Kahane, E., silica in the organism, and siliceous particles of the blood, A., 410.
- Lemberg, R., and Bader, G., conversion of pigments of red algae into mesobilirubin and mesodehydrobilirubin, A., 651. Bilirubinoid pigments. V. Chromoproteins of red algae. III. Phycobilins of red algae; transformation into mesobilirubin and dehydro-mesobilirubin, A., 1060.
- See also Blitz, H.
- Lemettre, A. See Polonovski, Max.
- Lemmel, L., lignin and its derivatives. II, A., 1051.
- Lemmermann, O., importance of the C:N ratio and other properties of organic matter in its action on plants and for its nitrification, B., 82. Value of lignite and so-called humus manures (stall manure, peat, "huminit," Bavarian carbon dioxide fertilisers, "biohumus," activated charcoal, and ammonium humate), B., 726.
- Jessen, W., and Lesch, W., action of magnesium salts on different soils, B., 83.
- Le Moal, A. See Warcollier, G.
- Lemoigne, P., Monguillon, P., and Dupic, H., influence of soil acidity on growth of sugar beet in decalcified soils of Cambrésis, B., 644.
- Lemoine, R., foundry applications of acid electric furnace steel, B., 1011.
- Lemon, J. M. See Stansby, M. E.
- Lempen, H. See De Diesbach, H.
- Lempert, G. See Sauerwald, F.
- Lenander, N. E., refining of sulphur, (P.), B., 626.
- and Patentaktief. Gröndal-Ramén, treatment of finely-divided sulphide ores [for recovery of sulphur], (P.), B., 473.
- Lendle, L., glucosides acting on the heart. I. Elimination of strophanthin under various conditions, A., 422.
- See also Haferkorn, M.
- Lenglen, M., must superphosphate be considered as a fertiliser which is liable to acidify the soil? B., 644. Determination of agricultural value of limes and limestones, B., 802.
- and Milhiet, determination of potassium as perchlorate, A., 1262.
- Lenher, S., sodium hydrosulphite rag-cooking process, B., 222.
- Lenhold, V., colorimetric determination of *a*-naphthylamine in technical naphthionate, B., 581.
- Lennard-Jones, J. B., electronic structure and interaction of simple radicals, A., 1232.
- Lennig, H., adsorption and reduction processes on active charcoal, A., 898.
- Lens, J., diffuse double layer, A., 444.
- See also De Jong, H. G. B.
- Lenssen, E. W. See Jores, A.
- Lenth, C. W., vapour pressure of *n*-butyl chloride, A., 1006.
- Lentz, C. J. See Bunce, Eurlie H.
- Lenz, B., analysis of absorption curve of cosmic rays, A., 763. Penetrating power and absorption coefficient of cosmic rays, A., 1101.
- Lenz, W., broadening of spectral lines, A., 332.
- See also I. G. Farbenind.
- Lenze, F. [with Sellen, and Koenen], preparation and properties of incendiary, illuminating, and detonating compositions for displays and signals, and their employment in fireworks' manufacture, B., 252.
- and Metz, L., explosibility of systems of base metals and halogen compounds, A., 33; B., 253.
- and Rettenmaier, A., increasing the efficiency of gas-purifying plants working with gas-purifying mass, (P.), B., 51.
- Leo, E. See Straub, W.
- Leo, M. See Erlenmeyer, H.
- Leo, W., electrical and optical behaviour of semi-conductors. VII. Photo-electric properties of semi-conductor unidirectional layers, A., 8.
- León, A. See Robinson, R.
- Leon, M. See Harbens (Viscose Silk Manuf.).
- Leonard, C. S. See Reiner, L.
- Leonard, G. F., and Heacock, E., determining the germicidal power of products which have a high bacteriostatic activity, B., 654.
- See also Anderson, J. F.
- Leonhard, W. C. See Hough, A.
- Leonhardt, H. See Dieterle, H.
- Leonhardy, E. C. See Egloff, G.
- Leonov, B. I. See Ardashev, B. I.
- Leopold, H. G., and Luck, J. M., equivalent conductance of aqueous barium hydroxide solutions [at 28°], A., 907.
- Leopold, R. See Gen. Aniline Works.
- Leopoldi, G. See Fischer, Hellmut.
- Le Paire. See Fauveau, J.
- Le Pelley, R. H., field spraying with undiluted paraffin extracts of *Pyrethrum* against *Antestia* and *Lygus* on coffee in Kenya, B., 646.
- Lepeschkin, W. W., osmotic pressure, and permeability of membranes, A., 22. Influence of narcotics, mechanical agents, and light on the permeability of protoplasm, A., 106.
- Lepeshinskaya, V. N., selenium rectifier photo-electric cell, A., 1135.
- Lepierre, C., Portuguese uranium-radium minerals, A., 483.
- Lepierre, C., and De Carvalho, A., Portuguese waxes, B., 975.
- and Leite, A. P., radium industry of Portugal, B., 963.
- Lepkovsky, S. See Evans, H. M.
- Lepol. Internationale Patentverwertungs G.m.b.H. See Polysius A.-G., G.
- Lepper, W., distillation tube for nitrogen determination, A., 139. Detection of mercury in "pickled" seeds, B., 1028.
- Leppik, J., heat-insulating material, (P.), B., 608.
- Leprince-Ringuet, L. See Trillat, J. J.
- Lerch, W. B., and Curo Process Co., treatment of emulsions of mineral oils, etc., (P.), B., 739.
- Lerman, J., effect of soporifics on blood-sugar, A., 744.
- See also Salter, W. T.
- Lerman, K. See Longinov, V.
- Lerner, S. S., preparation of a food product, (P.), B., 938.
- Le Romancer, R., and Le Thomas, A., effect of annealing temperature on the form of graphite precipitated [in cast iron], B., 869.
- Leroux, L. See Cambier, R.
- Le Roux, P., pleochroism of calcite in the infra-red, A., 336.
- Leroyer, [heat]-treated black heart malleable cast iron, B., 1058.
- Lesbre, M., imperfect silver [nitrate]-guanidine complex, A., 56.
- Lesch, W., influence of lime condition of a soil on assimilating power of plants for potassium and phosphoric acid, B., 1071.
- See also Lemmermann, O.
- Leschewski, K., analysis of pure synthetic ultramarine, A., 923.
- [with Möller, H., Barrolier, J., and Podszus, E.], recovery of blue ultramarine from a colourless degradation product, A., 794.
- and Möller, H., oxidation and reduction of ultramarine, A., 133. Significance of alkali in blue ultramarine, A., 133. Action of hydrogen and oxygen on blue ultramarine, A., 794.
- Leshner, N., Moeller, W. J., and Carey Manuf. Co., reclaiming [fibrous] stock from waste materials, (P.), B., 622.
- Leslie, E. H., and Badger & Sons Co., E. B., preparation of lubricants, (P.), B., 295.
- and Baker, E. M., [petroleum] distilling process and apparatus, (P.), B., 420.
- Leslie, R. T., purification of hydrocarbons by crystallisation from liquid methane; isolation of *β*-methylheptane from petroleum, B., 659.
- Lesné, E., and Clément, R., antirachitic factor in preserved eggs, A., 871.
- Dubois, R., and Simonnet, H., effect of irradiated ergosterol on the tetany in rabbits following parathyroidectomy, A., 196.
- Lesničenko, K., determination of mononitrotoluene, B., 953.
- Lesokhin, A., stability of margarine emulsions, B., 762.
- Lespagnol, A. See Polonovski, Michel.
- Lespieau, R., and Gredy, (Mlle.) B., [Raman spectra of] *α*-ethylene oxides, A., 337. Raman effect and chemistry; *α*-ethylene oxides, A., 1229.
- Guillemonat, and Urien, M., two hydrocarbons which form colloidal polymers, A., 485.
- and Wiemann, synthesis of *allodulcitol*, A., 47. Synthesis of dimethyl ether of *n*-pentitol, A., 932.

- Lesse, K. T. See Mannich, C.
- Lessheim, H., and Samuel, R., dissociation of diatomic molecules with *p-p* binding, A., 996.
- Lessig, (Miss) A. E. See Fosbinder, R. J.
- Lester, J. A., and Blair, J. M., application of Blair-Leighton equation to X-rays, A., 213.
- Lester, R. E., and Bugbird, H. C., dusting powder, etc., [for rubber], (P.), B., 80.
- Lester, W. J., aluminium and other materials, (P.), B., 634.
- Le Sueur, E. A., inception and development of electrolytic alkali manufacture, B., 505.
- Lesure, A., and Thomas, A., determination of blood- and urine-sulphur, A., 410.
- Thomas, A., and Lavagne, J., photoelectric cells and their applications in biological chemistry, A., 330.
- Letch, R. A., and Linstead, R. P., nitriles of  $\Delta^{\alpha}$ - and  $\Delta^{\beta}$ -olefinic acids, A., 940.
- Le Thierry d'Ennequin, L. See Fischer, Hans.
- Le Thomas, A., effect of high content of silicon on cast iron, B., 21. Preparation of nickel-manganese brass, B., 151. Tempering anomalies of cast iron: connexion with oxidation in the liquid state, B., 869.
- and Morlet, E., slow graphitisation [in iron] at low temperatures, B., 1058.
- and Olinger, M., graphitisation of cast iron: effect of high silicon content, B., 870.
- See also Ballay, M., Cournot, J., and Le Romancer, R.
- Letonoff, T. V. See Anderson, A. K.
- Letourneur, P., assisting chemical reaction between gases and liquids, (P.), B., 897.
- Lettmayr, K. See Kissler, J.
- Lettner, H. See Bleyberg, J.
- Létré, H., degradation products of cholesterol, A., 1047.
- Letz, W. H., and Letz Manufg. Co., grinding mill, (P.), B., 608.
- Letz Manufacturing Co. See Letz, W. H.
- Leuch, W. P., and Harding, Ltd., S. C. & P., photographic prints, (P.), B., 206.
- Leuchs, H., and Beyer, H., *Strychnos* alkaloids. LXXI. Behaviour of strychnine towards stannous chloride and hydrochloric acid, A., 289.
- Beyer, H., and Overberg, H. S., *Strychnos* alkaloids. LXXVI. Methoxymethyl-dihydroneo-brucidine and -strychnidine; decarboxylation of strychnidine, A., 1176.
- and Dornow, A., *Strychnos* alkaloids. LXXV. Reduction and oxidation of brucinesulphonic acids III and IV and of strychninesulphonic acid III, A., 1061.
- and Kröhnke, F., *Strychnos* alkaloids. LXX. Degradation of brucinonic acid;  $C_{23}H_{41}O_8N_2$ , to the base  $C_{17}H_{29}O_3N_2$  and the acid  $C_{11}H_{17}O_5N_2$ , A., 289.
- and Overberg, H. S., *Strychnos* alkaloids. LXIX. Further experiments on fission of brucine with cyanogen bromide and fission of dihydrobrucine. LXXIV. Complete hydrogenation of derivatives of strychnine and a transition from the brucine to the strychnine series, A., 170, 841.
- and Sattler, H. W., *Strychnos* alkaloids. LXXII. Derivatives of tetra- and hexa-hydrobrucine, A., 517.
- Leuchs, H., Schlempp, G., and Dornow, A., *Strychnos* alkaloids. LXXIII. Oxidation by chromic acid of brucine- and strychnine-sulphonic acids I and II and fission by hydrogenation of the ether groups in the acids  $C_{16}H_{20}O_7N_2S$  I and II, A., 617.
- Leuchs, K., titanous oxide for use as a pigment, (P.), B., 105.
- Leukacs, L., and Zellner, J., chemistry of higher fungi. XXII. *Ganoderma lucidum*, Leiss, *Hydnum imbricatum*, L., and *Cantharellus clavatus*, Pers., A., 876.
- Leukel, J. W., Dickson, J. G., and Johnson, A. G., effects of environmental factors on stripe disease of barley, and control of the disease by seed treatment, B., 404.
- Leulier, A., potassium, its micro-determination, fixation, and distribution [in tissues, etc.], A., 524.
- and Revol, L., distribution of lipin-phosphorus in the adrenals of mammals, A., 411.
- Sédallian, P., and Clavel, (Mme.) J., purification of diphtheria toxin, A., 191.
- Sédallian, P., and Finck, A., composition of the diphtheria bacillus, A., 190.
- and Tête, H., mercury derivative of sodium thiolpropanol-sulphonate, A., 532.
- See also Mouriquand, G.
- Leulier, M. See Bouillot, J.
- Leuthardt, F. [with Pfister, M.], absorption of light by aliphatic carboxylic and amino-acids in presence of neutral salts, A., 348.
- See also Edlbacher, S.
- Lev, D. S. See Golombik, M. S.
- Lev, J. S. See Golombik, M. S.
- Levallant, R., action of acid chlorides on orthoformic ester; preparation of symmetrical esters of sulphuric acid, A., 48. Preparation of esters of chlorosulphonic and sulphurous acids, A., 1033. Esters of chlorosulphonic and sulphuric acids, A., 1274.
- Levant, G. E., and Nemtsova, R. I., colorimetric determination of sulphur dyes, B., 779.
- Levecke, H. See Miethke, M.
- Levene, H. H. L. See Boots Pure Drug Co., and Coulthard, C. E.
- Levene, P. A., maximum rotations in homologous series of  $\alpha$ -bromo-acids, A., 488.
- and Harris, S. A., ribosephosphoric acid from yeast adenylic acid, A., 932.
- and Heymann, K., cerebronic acid. VIII, A., 1166.
- and Hill, D. W., dipeptide phosphoric acid from caseinogen, A., 1062. Action of pyridine on sugars, A., 1278.
- and Marker, R. E., [configurative relationships of methyl-, phenyl-, methylcyclohexyl-, and methylhexyl-carbinols and of their homologues], A., 143. Configurative relationship of hydrocarbons. V. Optical rotations of hydrocarbons of the isopropyl series, A., 693. Maximum rotations of phenyl compounds, A., 821. Configurative relationship of isopropyl-carbinols, A., 931. Optical rotations of configuratively related methoxypropiono- and  $\beta$ -methoxybutyro-nitriles, A., 1142.
- Levene, P. A., Marker, R. E., and Rothen, A., rearrangements by the action of nitrous acid on amines of the type  $CHPhMe-CH_2-NH_2$ , A., 58. Chemical structure and optical rotation. IV. Configurative relationship of disubstituted acetic and propionic acids containing a phenyl group, A., 606.
- and Raymond, A. L., substitution of glucose in position 4. I, A., 54. 3:5-Benzylidene- and 5:6-benzylidene-1:2-isopropylidenglucose, A., 378. Structure of ascorbic acid (vitamin-C), A., 1035. Phosphoric esters of xylose and of 5-methylisopropylidenglycose; their bearing on the nature of the pentose of yeast nucleic acid, A., 1141. 3- and 5-Methylxylose, A., 1144. Derivatives of isopropylidenglycose, A., 1145.
- and Rothen, A., rotatory dispersion in the visible and ultra-violet range of configuratively correlated carbinols, halides, and acids, A., 211.
- and Schormüller, A., synthesis of tyrosinephosphoric acid, A., 607.
- and Stillner, E. T., acetone [isopropylidene] derivatives of *d*-ribose, A., 1145.
- and Tipson, R. S., ring structure of uridine, A., 957.
- and Walti, A., phytochemical reduction of heptan- $\alpha$ -ol- $\beta$ -one, A., 54.
- and Yang, P. S., racemisation. XII. Action of alkali on polypeptides composed of *l*-alanine, A., 264. Oxidation and derivatives of *dl*- $\alpha$ -hydroxystearic acid, A., 1276.
- Levermore, C. L. See Gen. Chem. Co.
- Leverson, R. M., and Smith, M. C., relation of calcium and phosphorus in the diet to the cause of mottled enamel of human teeth, A., 302.
- Levey, L. T., unsplintcrable glass, (P.), B., 20.
- Levi, C., sampling of baled cotton for moisture determination, B., 380.
- Levi, G. See Orlandi, U.
- Levi, G. R., and Ghiron, D., magnesium chlorite and double chlorites of copper with magnesium, barium, and thallium, A., 474. Amorphous-crystalline transformation of arsenic and of antimony, A., 1003.
- and Tabet, M., X-ray examination of electrolytic chromium deposits, A., 1003.
- See also Lonza Elektrizitätswerke & Chem. Fabr. A.-G.
- Levi, M. G., Nasini, A. G., and De Cori, P., inert gas content and radioactivity of natural Italian hydrocarbon gases, A., 45.
- Levi, R., tests on automobile lubricating oils, B., 419.
- Levi, S. See Centnerszwer, M.
- Levin, B. See Gibson, C. S.
- Levin, D. E. [with Lowy, A.], derivatives of dihydroeugenol and pharmacological properties of the compounds, A., 708.
- Levin, H. L., and Flintkote Corp., aqueous dispersion, (P.), B., 694. Waterproof [-sheet] fibrous product, (P.), B., 781.
- Levin, I., and Ott, Emil, structure of interference lines obtained by the powder method, A., 213. X-Ray study of opals, silica glass, and silica gel, A., 666.
- Levin, I. H., liquefaction and rectification of air or other gaseous mixtures, (P.), B., 866.

- Levin, *I. H.*, and Gas Industries Co., fractional distillation, (P.), B., 576.
- Levin, *L.* See MacCorquodale, *D. W.*
- Levina, *R. D.* See Zelinski, *N. D.*
- Levine, *H.*, Remington, *R. E.*, and Kolnitz, *H. von*, relation of diet to goitre. I. Dietary technique for the study of goitre in the rat. II. Iodine requirement of the rat, A., 1322.
- Levine, *M.*, purification of beet-sugar wastes, B., 846.
- Levine, *P.* See Landsteiner, *K.*
- Levine, *V. E.*, and Richman, *E.*, antimony trichloride reaction with compounds containing 5-membered monoheterocyclic rings, A., 987.
- See also Sachs, *A.*
- Levinson, *A.* See Cohn, *D. J.*
- Levinson-Lessing, *F. J.*, statistical characteristics of the chemism of trachytes, A., 802.
- Levitin, *I.* See Bach, *N.*
- Lévy, *A.* See Darzens, *G.*
- Levy, *E.* See Hieber, *W.*
- Lévy, *G.*, derivatives of 2-ethylnaphthalene, A., 57. [4-Ethyl]- $\alpha$ -naphthol, A., 1287.
- Lévy, *J.* See Dupont, *G.*
- Levy, (*Mlle.*) *Jeanne*, and Beaune, *A.*, antagonism between camphor and potassium chloride, A., 310.
- and Cahen, *R.*, biological determination and standardisation of cardiac glucosides; ouabain, digitalin, scillaren, and cymarín, A., 1076.
- See also Tiffeneau, *M.*
- Levy, *M.*, equilibria in the formol titration, A., 381.
- See also Vignes, *H.*
- Lévy, *P.*, halogen indices of *Aleurites* oils, B., 353.
- Levy, *S.* See Farkas, *L.*, and Ladenburg, *R.*
- Levy, *S. A.*, photochemical test for quickly rating durability of varnishes, B., 77.
- Lewers, *G. R.*, [roasting] furnace, (P.), B., 687.
- Lewers, *W. W.* See Du Pont de Nemours & Co., *E. I.*
- Lewin, *G.*, Loebe, *W. W.*, and Samson, *C.*, micro-pyrometry; objective micro-pyrometer, A., 246.
- Lewin, *G. E.*, milk preparations, (P.), B., 249.
- Lewin, *I.*, slow combustion of gaseous saturated cyclic hydrocarbons having side-chains, A., 786.
- Lewin, *J.* See Baudouin, *A.*
- Lewin, *T.*, electrolytic recovery of copper from alloys, (P.), B., 313.
- Lewinson, *A.*, alcohol-weak beverages, (P.), B., 985.
- Lewis, *A. H.*, and Marmoy, *F. B.*, effect of ammonium sulphite on plant growth, B., 322. Determination of potassium by the cobaltinitrite method and its application in agricultural analysis, B., 680.
- Lewis, *Bernard*, decomposition of ozone by  $\alpha$ -particles and by thermal means, A., 578. Kinetics of gas explosions. IV. Ozone explosions induced by hydrogen, A., 1248.
- and Elbe, *G. von*, specific heat of oxygen at high temperatures from ozone explosions and the energy of the  $^{14}$ A level of the neutral oxygen molecule, A., 343. Recording pressure and time in gas explosions, A., 368.
- Lewis, *Bernard*, and Kreutz, *C. D.*, influence of ionisation on ignition temperature of combustible gases, A., 232. Effect of an electric field on the flame temperature of combustible gas mixtures, A., 469.
- Seaman, *H.*, and Jones, *G. W.*, determination and calculation of the flame temperatures of complex mixtures of combustible gases, B., 291.
- See also Elbe, *G. von*.
- Lewis, *Burns*, Gebauer-Fülnegg, *E. von*, and Farmer, *C. J.*, spectroscopic study and assay of histamine, A., 721.
- Lewis, *C. H.* See Travers, *J. T.*, and Urbain, *O. M.*
- Lewis, *C. M.*, rotational Raman effect of gases, A., 1228.
- Lewis, *D. C.* See Reid, *E. W.*
- Lewis, *D. T.* See Robinson, *H. V. W.*
- Lewis, *E. J.* See Park, *B.*
- Lewis, *E. K.*, and Wenz, *E.*, cast-iron roll, (P.), B., 552.
- Lewis, *E. R.* See Brown, *F. E.*
- Lewis, *F. D.*, production of [viscose]artificial silk of reduced lustre, (P.), B., 1052.
- Lewis, *G. C.*, and Columbian Carbon Co., carbon black, (P.), B., 693.
- Lewis, *G. J.* See Maxted, *E. B.*
- Lewis, *G. N.*, the chemical bond, A., 211.
- Isotope of hydrogen, A., 442. Simple type of isotopic reaction, A., 1020. Biochemistry of water containing hydrogen isotope, A., 1093.
- and Cornish, *R. E.*, separation of the isotopic forms of water by fractional distillation, A., 793.
- and Doody, *T. C.*, mobility of ions in  $\text{H}^2\text{H}^2\text{O}$ , A., 1015.
- and Macdonald, *R. T.*, properties of pure  $\text{H}^2\text{H}^2\text{O}$ , A., 894.
- and Spedding, *F. H.*, spectroscopic search for  $\text{H}^3$  in concentrated  $\text{H}^2$ , A., 759.
- Lewis, *H. A.* See Du Pont de Nemours & Co., *E. I.*
- Lewis, *H. B.* See Chase, *B. W.*, Silbermann, *A. K.*, and White, *A.*
- Lewis, *H. F.*, relative stabilities of rag and purified sulphite pulps, B., 56. Relative stabilities of bleached rag half-stocks and bleached purified sulphite pulps to degradation by calcium hypochlorite solutions, B., 542.
- Koonce, *W. E.*, and Young, *G. H.*, Noll method for determination of lignin in pulps, B., 742.
- Lewis, *I. M.* See Swearingen, *J. S.*
- Lewis, *J. A.* See Fancher, *G. H.*
- Lewis, *J. H.*, and Hayden, *H. C.*, effect of heat on antigenic properties of milk, A., 412.
- See also Cutler, *O. I.*
- Lewis, *J. R.*, and Seegmiller, *F.*, promoter action in catalytic decomposition of sodium hypochlorite solutions. IV., A., 1253.
- Lewis, *J. W.*, test for chemically damaged cotton fibres, B., 500.
- Lewis, *K.* See Fletcher, *W. A.*
- Lewis, *K. G.*, properties of copper-bearing steels. I. Copper-bearing steels of present industrial interest, B., 151.
- Lewis, *L. L.*, and Blair Strip Steel Co., annealing of metal work, (P.), B., 511.
- Lewis, *P. W.* See Peddick, *C. H., jun.*
- Lewis, *R. C.*, and Mills, *G. E.*, comparative value of chlorobenzene and thymol when used with fluoride as preservatives of blood for chemical analysis, A., 734.
- Lewis, *R. C.* See also Geraghty, *G. B.*, Longwell, *B. B.*, Orten, *J. M.*, and Underhill, *F. A.*
- Lewis, *R. D.* See Alben, *A. O.*
- Lewis, *R. I.*, and Shell Development Co., refining hydrocarbon oil, (P.), B., 615.
- Lewis, *R. W.*, [bituminous] emulsions, (P.), B., 499. Dispersions, (P.), B., 499.
- and Saunders, *A.*, bituminous dispersions, (P.), B., 499.
- Lewis, *S. J.*, uranium as a source of continuous ultra-violet radiation, A., 689.
- Lewis, *W. B.* See Rutherford, (*Lord*).
- Lewis, *W. C.* See Huston, *R. C.*
- Lewis, *W. C. M.* See Price, *C. W.*
- Lewis, *W. J.*, and Jones, *G. E.*, magneto-optical dispersion of organic liquids in the ultra-violet region of the spectrum. VI. Magneto-optical dispersion of acetic acid and *n*-propyl acetate, A., 663.
- Lewis, *W. K.*, and Luke, *C. D.*, vapour-liquid equilibria of hydrocarbons at high pressures, A., 895.
- and Standard Oil Development Co., protective coating [for internal parts of oil containers], (P.), B., 276. Obtaining hydrocarbons from wells, (P.), B., 456. [Apparatus for] obtaining gasoline hydrocarbons, (P.), B., 456. Separation of [liquid] mixtures of substances only partly miscible, (P.), B., 529. Cracking of hydrocarbons by contact with hot gases, (P.), B., 536. Partial oxidation of gaseous hydrocarbons, (P.), B., 536.
- See also Goodyear Tire & Rubber Co., and Howard, *F. A.*
- Lewkonja, *G.*, and Baukloh, *W.*, permeability of steel to hydrogen at 700–1000°, B., 509.
- Lewkowitsch, *E.*, composition of cacao butter, B., 717.
- Ley, *P. H. van der*, and Wibaut, *J. P.*, properties of nitrogen in nitrogenous carbons as compared with properties of nitrogen in coke, B., 373.
- See also Wibaut, *J. P.*
- Lheure, *L.* See Du Pont de Nemours & Co., *E. I.*
- Lheureux, *L.*, edible *Cyperus*, a source of sucrose and starch, B., 280.
- Li, *T. W.* See Sah, *P. P. T.*
- Li, *Y. H.*, and Ma, *T. S.*, decolorising power of activated charcoal, B., 947.
- Ma, *T. S.*, Jen, *J. Y.*, and Lei, *S. H.*, manufacture and testing of gas-absorbing charcoal, with special reference to the zinc chloride method, B., 947.
- Liandrat, *G.*, internal photo-electric effect in liquid dielectrics, A., 662.
- Liang, *C. K.*, additive properties of secondary  $\alpha\alpha$ -diacetylenic alcohols and their alcoholic properties, A., 373.
- Liang, *W. S.* See Bertho, *A.*
- Liauté, *R.* See Carrière, *E.*
- Libbey-Owens-Ford Glass Co. See Drake, *J. L.*, and Ferngren, *E. T.*
- Libby, *C. E.*, and Parkinson, *L.*, testing blood-resistance of butchers' wrapping paper, B., 542.
- Libby, *W. F.*, and Latimer, *W. M.*, radio-activity of lanthanum, neodymium, and samarium, A., 204.
- Liberalli, *C. H.*, chemistry of *Mikania hirsutissima*, D. C., B., 891.
- Libermann, *D.* See Carré, *P.*

- Libikh, S. F., and Dmitriev, G. A., effect of muscular work on urinary excretion of nitrogen phosphorus, and creatinine, A., 1324.
- See also Petrov, I. R.
- Lichatshev, N. D. See Orlov, N. A.
- Lichoscherstov, M. V., new method of halogenation. I. Chlorination with dichlorocarbamide. II. Bromination with dichlorocarbamide and potassium bromide, A., 814.
- and Petrov, A. A., new method of introducing the thiocyno-group into aromatic compounds with dichlorocarbamide, A., 817.
- and Shabotinskaja, V. E., 2-amino-resorcinol and its derivatives, A., 389.
- and Tzimbalist, B. I., new method of halogenation. III. Iodination with dichlorocarbamide, A., 814.
- Lichtenberg, H., gastric lipase, A., 412.
- Lichtenthaler, F. E., distillation apparatus, etc., (P.), B., 335.
- Lichtman, S. S., liver function in hyperthyroidism, A., 86.
- Liddel, U., and Wulf, O. R., absorption of amines in the near infra-red, A., 1102.
- See also Brackett, F. S.
- Liddell, R. P. F. See Motor Improvements, Inc.
- Liddle, J. C., solvent recovery by active carbon, B., 480.
- Lieb, H., and Mladenović, M. [with Režek, A., and Sobotka, M.], elemic acid from manila-elemic resin. VII. Methyl ether and bromo-derivatives of  $\alpha$ -elemolic and  $\alpha$ -elemonic acids, A., 829.
- and Schadendorff, E., toxic substance from protein degradation, A., 1189.
- See also Lanyar, F.
- Lieben, F., and Bauminger, B., action of sodium hypochlorite on amino-acids and proteins, A., 842. Oxidation of caseinogen and serum-albumin by potassium permanganate, A., 842.
- and Edel, Emanuel, reaction of tissues with alloxan, A., 523.
- and Getreuer, V., decomposition of cyclic nitrogen compounds by light from the quartz lamp, A., 473.
- See also Eckstein, H. C.
- Lieber, E. See Standard Oil Development Co.
- Lieberman, A. L., calcium. VII. Calcium effects on thoracic lymph flow of dogs, A., 972.
- and Zimmerman, L. M., calcium. VIII. Therapeutic effects of calcium gluconate on thrombophlebitic oedema, A., 972.
- Liebhafsky, H. A., and Mohammad, A., kinetics of the reduction, in acid solution, of hydrogen peroxide by iodide ion, A., 1250.
- See also Makower, B.
- Liebisch, W., chemical reagents for preservation of cut flowers and plants, B., 360. Action of stimulants, particularly gases, on vegetable organisms, B., 1027.
- Liebknecht, O., and Gerb, L., colorimetric determination of lead, especially in water, B., 126, 286.
- and Permutit Co., water-softening gels, (P.), B., 60. Removing silica from water, (P.), B., 494.
- Liebreich, E., theory of chromium plating, A., 1019.
- Liebscher, E. See Bergmann, M.
- Liebscher, W., feeding trials with saponin as supplement to pig rations, B., 764. Influence of acetic, lactic, and butyric acids on resorption of nutrients and on calcium and phosphorus metabolism of ruminants, B., 1033.
- Liebster, H. See Fredenhagen, K.
- Liempt, J. A. M. van, value of  $b_k$  and atomic radii of elements in relation to the periodic system, A., 5. Application of J. J. van Laar's theory concerning the additivity of  $b$  and  $\sqrt{a}$  to aluminium compounds, A., 16. Application of J. J. van Laar's theory concerning the additivity of  $b$  and  $\sqrt{a}$  to boron, iron, nickel, osmium, and iridium compounds, A., 16. Relation between ionic radius and higher ionisation potential, A., 202. Value of  $\sqrt{a}$  for elements, in correlation with the periodic system, A., 344. Action of alkaline potassium ferri-cyanide solutions on tungsten, A., 796. Determination of the coefficient of radial expansion of "Dumet" wire from the chemical analysis, B., 790.
- and De Vriend, J. A., explosion of mixtures of carbon disulphide and nitric oxide. I. and II., A., 355, 910. Explosion of  $\text{CS}_2\text{-N}_2\text{O}$  and of  $\text{CS}_2\text{-N}_2\text{O-NO}$  mixtures, A., 1249.
- Lierle, D. M., and Sage, R. A., calcium, phosphorus, and potassium of serum and spinal fluid in asthma, A., 180.
- Liese, K., and Schaum, K., photometric and spectrophotometric studies. IX. Simple recording spectrophotometer and its use in the infra-red, A., 248.
- Liese, W., benzoic acid as preservative for foodstuffs, A., 636.
- Liesegang, H., manual action of potash salts, used alone and in admixture, B., 243. Power of assimilation and requirement of potash of buckwheat, barley, oats, and yellow lupin, B., 243.
- Liesegang, R. E.,  $p_H$  determination in photographic paper, B., 93.
- Lieske, R. See Fischer, Franz.
- Liestmann, W., nitrogenisation process of [case]-hardening [steel], B., 967.
- Lifschitz, I., optical activity in triphenyl-methane derivatives, A., 1104.
- Lifshitz, E. Y. See Selivanov, B. P.
- Light, A. K. See Wright, J. G.
- Light, L., benzylcellulose compositions, (P.), B., 929.
- Lightalloys, Ltd., and Grieve, W. H., aluminium alloys and methods of treating same, (P.), B., 714.
- and Metallgesellschaft, A.-G., modification of aluminium-base alloys containing silicon, (P.), B., 474.
- and Pacz, A., modifying aluminium alloys containing silicon, (P.), B., 71.
- Ligno-Cellulose Corporation. See Hatch, R. S.
- Lignose Hörfilm System Breusing G.m.b.H., [shaped] incandescence cathodes for thermionic tubes, (P.), B., 236.
- Lignozna Spółka Akcyjna, [low-density] explosives, (P.), B., 366.
- Ligon, W. S., and Pierre, W. H., soluble aluminium studies. II. Minimum concentration of aluminium found to be toxic to maize, sorghum, and barley in culture solutions, B., 36.
- Ligor Bey, Rezat Bey, and Valensi, G., titrimetry of sugars, A., 492. Cuprometric determination of sugars in the presence of ammonia, A., 964.
- Likhushin, K. P., and Dei-Karkhanova, A. N., purification of sulpho-acids by sulphonating the kerosene distillate, B., 453.
- Likhachev. See under Lichatshev.
- Likiernik, A. See Guyer, A.
- Lilienfeld, J. E., cathode for electrolytic condensers, (P.), B., 716.
- Lilienfeld, L., bi- or multi-valent aliphatic organic compounds, (P.), B., 218. Organic bases [from dichlorohydrins and ammonia], (P.), B., 662. Cellulose xanthate derivatives and artificial materials therefrom, (P.), B., 224. Artificial threads or other products from cellulose compounds, (P.), B., 664. Treatment of vegetable fibres and artificial threads, (P.), B., 667. Coating, dressing, and other treatment of textile materials, (P.), B., 667. Manufacture of cellulose compounds and of artificial materials therefrom, (P.), B., 667. Artificial threads and other products from cellulose compounds, (P.), B., 861.
- Lillie, R. D. See Smith, M. I.
- Lilliendahl, W. C. See Westinghouse Lamp Co.
- Lillig, R., concentrated sulphuric acid without and with addition of other substances as reagents for colour reactions of alkaloids, A., 1064.
- Lilly, C. A., comparison of bone-ash of rachitic rats treated with viosterol and with phosphate ion, A., 434.
- Lilly, H. A. See Aluminium, Ltd.
- Lilly, V. G., and Garland, C. E., regeneration of humic acids from coal by nitric acid oxidation, B., 132.
- Lilly & Co., E. See Major, R. H., Shonle, H. A., and Walden, G. B.
- Lim, R. K. S. See Kosaka, T.
- Limanowski, W., catalytic decomposition of hydrogen peroxide by ferric ions, A., 33.
- Limaye, D. B., lactone formation in sunlight, A., 157.
- Limaye, P. S. See Prasad, M.
- Limbrick, C. B., moisture-measuring device, (P.), B., 816.
- Limburg, H. See Waterman, N.
- Liming, O. N., preparation and properties of pentathionic acid and its salts; its toxicity to fungi, bacteria, and insects, A., 475.
- Limited Co., formerly Skoda Works, aluminium alloys containing silicon, (P.), B., 235. Aluminium alloys for pistons, (P.), B., 395.
- Limoges China Co. See McMaster, H. J.
- Limpert, J. A. See Rothchild, H. A.
- Linch, F. W. See Imperial Chem. Industries.
- Linck, G., "peat-dolomites" ["coal-balls"], A., 1031.
- Lincoln Electric Co. See Jerabek, T. E.
- Lincoln Oil Refining Co. See Culmer, T. W.
- Lind, S. C., and Livingston, R., photochemical polymerisation of methylacetylene and allene, A., 473.
- Lindau, G. See Freundlich, H.
- Lindberg, N. C., and Victor Chem. Works, conversion of ferrophosphorus, (P.), B., 834.
- Lindblad, E. See Zschacke, F. H.
- Linde, J. O., electrical properties of very dilute mixed-crystal alloys. III. Resistance of copper and gold alloys; regularity of resistance increments, A., 18. Grating constants of copper-palladium mixed crystals, A., 115.



- Linde Air Products Co., and Oldham, S. R., removal of metal from metal articles [e.g., seams from steel billets], (P.), B., 394.
- and Zenner, G. H., [copper alloy for] articles or apparatus subject to low temperatures, (P.), B., 896.
- Linde, P. van der. See De Jong, H. G. B.
- Lindeman, H. See Ornstein, L. S.
- Lindemann, E. See Müller, Eugen.
- Lindemann, F. A., and Keeley, T. C., helium liquefaction plant at the Clarendon Laboratory, Oxford, A., 250.
- Lindemann, H., production and vulcanisation of sponge rubber, B., 557.
- Lindemann, O. A., and Schutte & Koerting Co., vapour condenser, (P.), B., 1040.
- Linden, A. J. ter, emission of dust and grit from power-station chimneys in Holland, B., 943.
- Lindenfeld, K., determination of inorganic phosphoric acid and phytinphosphoric acid in phytin preparations, A., 328.
- Linder, C. P. See Charlesworth, S. I.
- Linderström-Lang, K., histochemistry of enzymes. IV. Peptidase content of marine invertebrates, A., 535, 864.
- and Holter, H., histochemistry of enzymes. V. Micro-determination of sugars. VI. Micro-determination of ammonia, A., 864, 1218.
- See also Holter, H.
- Lindgren, H. O., Malm, K. G., and De Laval Separator Co., recovery of paraffin from paraffin-containing materials, (P.), B., 9.
- Lindgren, R. M., Scheffer, T. C., and Chapman, A. D., tests of chemical treatments for control of sap stain and mould in southern [United States] lumber, B., 229.
- Lindhard, P. T., and Smidth & Co., F. L., hydraulic cement, (P.), B., 788.
- Lindley, H. W., microscope refractometer, (P.), B., 449.
- Lindley, W. S. See Alcock, V. G. H.
- Lindliet, W. E., m.p. of binary and ternary copper-rich alloys containing phosphorus, A., 896.
- See also Smith, C. S.
- Lindner, A. See Hilpert, S.
- Lindner, F., muscle-adenylic acid from yeast and yeast-adenylic acid from pancreas; nomenclature of the adenylic acids, A., 847.
- Lindner, J., sources of error in organic elementary analysis. IX. Metallic copper as substitute for lead peroxide in micro-elementary analysis, A., 80.
- Semi-micro-apparatus for determination of carbon and hydrogen by the method of Orthner and Reichel, A., 843.
- Interference with volumetric determination of carbon dioxide by the silicic acid content of the barium hydroxide solution, A., 1023.
- Constant-pressure gasholder, A., 1266.
- and Figala, N., suitability of anhydrous sodium carbonate for volumetric standardisations, A., 135.
- Lindner, K., significance of fatty acid carboxyl group in textile-aid industry, B., 197, 461.
- Russe, A., and Beyer, A., analytical determination of fatty alcohols in their sulphonation products, B., 637.
- Lindsay, J. D., and Standard Oil Co., wax-containing composition, (P.), B., 556.
- Lindsay, W. J. See Iiff, J. W.
- Lindsey, F. A., jun. See Royce, H. D.
- Lindsey, G. A., and Rhines, C. M., production of hydroxylamine by reduction of nitrates and nitrites by various pure cultures of bacteria, A., 429.
- Lindsey, J. B., and Archibald, J. G., systems of feeding dairy cows; high roughage and low grain *versus* low roughage and high grain, B., 443.
- Lindstrom, A. F. See Westinghouse Lamp Co.
- Lindwall, H. G., and Maclellan, J. S., condensation of acetophenone with isatin by the Knoevenagel method, A., 164.
- See also Braude, F.
- Linehan, P. A., and Mercer, S. P., fluorescence of *Lolium* seedlings in ultra-violet light, A., 330.
- Lines, E. W. L. [with Thomas, R. G.], effect of an iodised lick on growth and wool of Australian merino sheep, A., 1196.
- Lineweaver, H., characteristics of oxidation by *Azotobacter*, A., 317.
- See also Burk, D.
- Ling, A. W., and Haggard, A., eradication of weeds of arable land by sodium chlorate, B., 645.
- Ling, H. W. See Burn, J. H., and Coward, K. H.
- Lingane, J. J. See Kolthoff, I. M.
- Lingen, G. W. B. van der, mineral constituents of *Artemisia afra*, A., 650.
- Linggood, F. V. See Paine, S. G.
- Linhard, M., and Stephan, M., solubility of inorganic compounds in liquid ammonia. I, A., 456.
- Linhart, G. A., application of the law of mathematical probability to the behaviour of gases in their pressure-volume-temperature relations, A., 668.
- Linicrus, W. See Burkhardt, A.
- Link, K. P., crystalline d-mannuronic acid, A., 53.
- Isolation of pyrocatechol from pigmented onion scales and its relation to disease-resistance in onions, A., 651.
- See also Morell, S., Niemann, C., and Schoeffel, E.
- Link-Belt Co. See Tark, M. B.
- Linke, B., and Preissecker, H., determination of tin as stannous sulphide, A., 1263.
- Linn, C. V. See Internat. Bitumenoil Corp.
- Linnell, W. H. See Hersant, E. F.
- Linnhoff, F., [coreless] induction electric furnace, (P.), B., 594.
- and Ajax Electrothermic Corp., electric induction furnace, (P.), B., 674.
- Linnhoff, W., properties of collodion membranes from different cellulose nitrates, A., 223.
- Linguist, E. See Lebedev, A.
- Lins, K., apparent densities of lithopones, B., 315.
- Linser, H. See Klein, Gustav.
- Linsert, O., and Winthrop Chem. Co., preparation of crystalline antirachitic product, (P.), B., 1036.
- Linstead, R. P., Noble, E. G., and Boorman, E. J., olefinic acids. VII. Preparation of  $\Delta^8$ -acids, A., 934.
- and Rydon, H. N., olefinic acids. XI. Formation of lactones from  $\Delta^4$ -unsaturated acids, and an example of ring-chain (lacto-enoic) tautomerism, A., 934.
- Addition of hydrogen bromide to olefinic acids, A., 1275.
- See also Boorman, E. J., Imperial Chem. Industries, Ives, D. J. G., Letch, R. A., and Thorpe, J. F.
- Linström, C. F. See Scheibe, G.
- Linton, E. P., and Maass, O., electric moment of hydrogen peroxide, A., 8.
- Lintzel, W., micro-determination of iron in biological material, A., 878.
- Resorption of iron of food as ferrous iron, A., 976.
- Linzell, H. K., Scholz, H. A., and U.S. Gypsum Co., plastic paint, (P.), B., 276.
- Lion, K., Doppler effect in hydrogen at high voltages, A., 879.
- Excitation of X-rays by collision of high-velocity positive ions, A., 881.
- Lionne, E., papermaking, (P.), B., 103.
- Urea-formaldehyde condensation product and process, (P.), B., 1021.
- Lions, F., indoles. III: Application of the Japp-Klingemann reaction to cyclic  $\beta$ -keto-acids, A., 835.
- See also Bondietti, G., and Holdsworth, (Miss) M. G.
- Liotta, C. See Niederl, J. B.
- Lipetz, M. E., Rhebinder, P. A., and Rimskaja, M. M., physical chemistry of solid oxidised paraffin as a flotation reagent. V, B., 920.
- and Rimskaja, M. M., surface activity and surface tension as a method of investigation of flotation reagents. I, A., 122.
- Flotation process. IV. Determination of contents of flotation agents in aqueous media by means of surface-tension measurements, B., 193.
- Lipmann, F., phosphorus-containing amino-acid from caseinogen, A., 620.
- Metabolism of tissues; rôle of glycolysis in the metabolism of embryonic cells, A., 741.
- State of combination of phosphorus in phosphoproteins. I. Sérinephosphoric acid from caseinogen. II. Nature of the linking between protein and phosphoric acid, A., 843.
- Inhibition of glycolysis by oxidation, A., 1202.
- Lipovich, I. See Magidson, O. Y.
- Lippard, V. W. See Marples, E.
- Lippert, L. See Wagner, Gustav.
- Lippert, T. W. See Pugh, E. M.
- Lippmann, L., denicotinised tobacco, (P.), B., 765.
- Lippmann, L. M. See Faitelowitz, A.
- Lipschitz, W., and Reuter, E., pharmacology of inflammation. IX. Action of water- and salt-mobilising agents on the inflammatory reaction, A., 1190.
- Lipschütz, A., presence of luteinising factor in guinea-pig pituitary, A., 193.
- Source of testicular hormone, A., 643.
- and Poch, E., extraction of folliculin from urine of pregnant mares, A., 1211.
- Lisbonne, M., and Seigneurin, electrophoresis of *Brucella*, A., 866.
- See also Basset, J.
- Lisev, V. I., accumulator jars from plastic masses in Karbolit works, B., 316.
- Lishkevitch, M. I. See Ivanov, N. N.
- Lishman, D. L. See Lishman, W. W. L.
- Lishman, J. L. See Lishman, W. W. L.
- Lishman, W. W. L., Lishman, J. L., and Lishman, D. L., machines for treating fibrous materials with liquids, (P.), B., 505.
- Lisiecki, J., kinetics of peptisation of hydrated chromic oxide, A., 32.
- Lisman, J. H. C. See Keesom, W. H.
- Lissitzin, M. A., and Alexandrovskaja, N. S., hydrolysis of proteins during denaturation, A., 1062.
- Lissman, M. A., and Internat. Precipitation Co., elutriating means, (P.), B., 945.
- See also Horne, G. H.

- Lister, W. N., antioxidants in rubber-proofing, B., 79.
- Lister & Co., Ltd., R. A., and Maw, W. G., grinding or crushing apparatus, (P.), B., 176.
- Liston, T. R., and Dehn, W. M., modified Soxhlet [extractor], A., 1135.
- Listrat, J. J., antimony oxides, (P.), B., 588.
- Litarczek, G., Aubert, H., and Cosmulesco, L., oxygen affinity of hæmoglobin expressed by the constant  $1/k$  and the plasma- $p_{H_2}$ , and factors which may affect it, A., 293.
- and Dinischiotu, G. T., glutathione and changes in the spectrum of hæmoglobin, A., 844. Changes in hæmoglobin spectrum in experimental anæmia in the rabbit, A., 851.
- Litchfield, I. W., and Bemis Industries, Inc., mixer, (P.), B., 576.
- Litharge Recovery Corporation. See Kinsel, A.
- Litinsky, L., ceramic heating elements for electric furnaces, B., 507. Modern methods in manufacture of refractory articles, B., 867.
- Little, T. J., jun., and Silica Gel Corp., purifying the refrigerant in refrigerating systems, (P.), B., 369.
- Litten, W. See Sonn, A.
- Litterscheidt, W., modern coal research and its importance in the gas industry, B., 337.
- See also Baum, K.
- Little, B. P. See Pike, R. D.
- Little, E. C. See Wilson, Curtis L.
- Little, E. G. See Collett, M. E.
- Little, J. E., Kichline, F. O., Ehr Gott, A., and Bethlehem Steel Co., treatment of ores [containing chromite and limonite], (P.), B., 634.
- Little, R. B. See Jones, F. S.
- Little, W. L., and Mattick, E. G. V., calcium content of cow's blood. I. Effect of feeding cod-liver oil, A., 871.
- Little, Inc., A. D. See Crocker, E. C.
- Little Industrial Corporation, A. D. See Stevenson, E. P.
- Littler, H. G., production and uses of solid carbon dioxide, B., 668.
- Littleton, J. T., critical temperatures in silicate glasses, B., 704.
- Littmann, E. R. See Gibbs, C. F.
- Littmann, O. See Hess, K.
- Littoo, J. F., and Hercules Glue Co., spreader for spray compositions [insecticides, etc.], (P.), B., 983.
- Litvin, O. B., acetylation of cellulose, B., 423.
- Litzinger, A. See Hahn, D. A.
- Litzner, S., and Weyrauch, F., lead contents of blood and urine in relation to the appearance of clinical symptoms and its diagnostic significance, A., 312.
- Liu, C. See Gilman, H.
- Lin, C. S., viscosity of ovalbumin and hæmoglobin in carbamide solutions, A., 1063.
- Liu, M. See Schlubach, H. H.
- Liu, Y. P. See Borsook, H., and Lucas, H. J.
- Liuzernova, G. A. See Kirsanov, A. T.
- Livada, K. See Kuhn, R.
- Livings, G. See Dunlop Rubber Co.
- Livingston, B. E. See Mack, W. B.
- Livingston, J. W., and Monsanto Chem. Works, maleic acid, (P.), B., 998.
- Livingston, M. S., high-speed hydrogen ions, A., 1223.
- See also Lawrence, E. O.
- Livingston, R., purification of radon, A., 238.
- and Reyerson, L. H., adsorption of radon by silica gel, A., 604.
- See also Lind, S. C.
- Lix, G. See Bleyer, B.
- Ljubitsch, N. See Hess, K.
- Ljunggren, G., measuring syringe for analytical purposes, A., 1265.
- and Frang, G., micro-determination of carbon monoxide by the iodine pentoxide method, A., 136.
- Ljunggren, S. See Hägglund, E.
- Llewellyn, I. P. See Spence, H.
- Llewellyn, W. B. See Spence, H.
- Lloyd, (Miss) D. J., and Marriott, R. H., distribution of sulphur in goat hair, A., 847.
- and Marriott, R. H., swelling of protein fibres. II. Silk gut, B., 1049.
- Marriott, R. H., and Pleass, (Miss) W. B., swelling of protein fibres. I. Swelling of collagen, A., 463.
- and Moran, T., bound water of gelatin gels, A., 1244.
- and Phillips, H., protein structure and protein hydration, A., 226.
- and Pleass, (Miss) W. B., titration curves of vegetable tanning materials, B., 642.
- Lloyd, E. A., Gershon, V. P., and Grosvenor, W. M., anthraquinones, (P.), B., 220.
- Lloyd, F., and Wheeler, R. V., coke-fired reheating furnace [for steel], B., 918.
- Lloyd, J., solvent recovery [in rubber-proofing industry], B., 480.
- Lloyd, L., determination of water pollution by a biological reaction, B., 990.
- Lloyd, L. L., some general sources of faults in textile materials, B., 858.
- Lloyd, R. See Burget, C. E.
- Lloyd, T. C. See Hacker, J. W.
- Loane, C. M., preparation of oxide catalysts for the carbon monoxide oxidation, A., 680.
- Lob, P., importance of refraction values of benzines, B., 293.
- Lobanovitsch, A. See Jermolenko, N.
- Lobe, M. See Arend, J.
- Lobel, L., and Dubois, M., practical test of criterion of speed [of negative emulsions] suggested by P. Lapeyre, B., 652.
- Lobley, A. G. See Birmingham Electric Furnaces, Ltd.
- Lobstein, E., and Angel, M., determination of sulphates in wines by the benzidine method, B., 984.
- Lobstein, J. E., and Flatter, M., determination of fat in milk, B., 936.
- and Weill, A., root of the dwarf palm as adulterant of sarsaparilla, B., 1035.
- Locher, G. L., photo-electric quantum counters for visible and ultra-violet light. I., A., 109.
- Lochhead, A. G., factors concerned in fermentation of honey, B., 937.
- and Johns, C. K., relative efficiency of various methods of sterilisation of milk utensils in destruction of *Es. coli*, B., 569.
- Lochmann, G., detection of oxalic acid as oxalatomanganate, A., 489.
- Lochte, H. L., and Hoover, A., micro-burette for potentiometric micro-analysis, A., 1135.
- and Paul, R. E., electrochemical behaviour of iron in corrosion cells. I. Iron electrode carrying no external current. II. Cathode. III. Current-carrying capacity, A., 1122.
- Lochte-Holtgreven, W., and Eastwood, E., rotation-vibration spectrum of acetylene, A., 113.
- Lock, G., diethyl azobenzoate, A., 946.
- [with Hosaeus, W., jun.], Cannizzaro reaction, A., 504.
- See also Asinger, F.
- Lock, S., elimination of the aldehydic group as formic acid from aromatic aldehydes. I. Polychlorobenzaldehydes, A., 1295.
- Locke, A., Main, E. R., and Rosbash, D. O., copper and non-hæmoglobinous iron contents of blood-serum in disease, A., 85.
- Locke, F. J. See Locke, F. M.
- Locke, F. M., Locke, F. J., and Corning Glass Works, ultra-violet ray-transmitting glass, (P.), B., 706.
- Lockemann, G., and Bülow, B. F. von, detection of very small amounts of arsenic by the Gutzeit test, A., 1261.
- and Kunzmann, T., antiseptic activity and chemical constitution of the xlenols and their monohalogen derivatives, A., 707.
- and Ulrich, W., toxic action of alcohol-acid mixtures. I., A., 319.
- Ulrich, W., and Kunzmann, T., colorimetric determinations with the use of a special tube stand, A., 130.
- Lockey, J. See Distillers Co.
- Lockhart, G. R., and Manville Jenckes Co., [dyed] rayon [thread], (P.), B., 504.
- Rayon, (P.), B., 1005. Reinforced vulcanised rubber articles, (P.), B., 1023.
- Lockwood, H. C., use of Hortvet apparatus in determining f.p. of milk, B., 40.
- Lockwood, J. E. See Brownell, K. A.
- Lockwood, S., grape leafhopper in California, with special reference to its control, B., 405.
- Locuty, P., and Laffite, P., system  $(\text{NH}_4)_2\text{SO}_4\text{--H}_2\text{SO}_4\text{--H}_2\text{O}$ , A., 570.
- Lodge, F. See Imperial Chem. Industries.
- Loeb, L. B. See Keck, P.
- Loeb, R. F., chemical changes in blood in Addison's disease, A., 85.
- Atchley, D. W., Benedict, E. M., and Leland, J., electrolyte balance studies in adrenalectomised dogs with particular reference to excretion of sodium, A., 1069.
- See also Atchley, D. W.
- Loebe, R., and Köhler, R., sedimentation analysis, A., 920.
- Loebe, W. W. See Lewin, G.
- Loebel, A., and Bataafsche Petroleum Maats., asphalt, (P.), B., 774, 851.
- Loebel, R. O., Shorr, E., and Richardson, H. B., influence of adverse conditions on respiratory metabolism and growth of human tubercle bacilli, A., 1207.
- Influence of foodstuffs on respiratory metabolism and growth of human tubercle bacilli, A., 1207.
- Loebel, Z. C., and Patent & Licensing Corp., preparation of [coloured granules for roof-] surfacing material, (P.), B., 469.
- Loebell, H. O., and Doherty, H. L., apparatus for manufacture of combustible gas, (P.), B., 950.
- Löber, H., simple method of elutriation analysis, A., 140.
- Loeck, V., intensity measurement of X-radiation by means of enumeration of light quanta, A., 108.
- Löffler, G. See Müller, W. J.
- Löfquist, H., treatment of alloys containing iron and manganese, (P.), B., 552.

- Löhr, G. See Eitel, H., and Fränkel, Ernst.  
 Loehr, W. M. See Beutner, R.  
 Lönnberg, E., carotenoids of marine invertebrates, A., 1067. Carotenoid pigments of fishes, A., 1067.  
 Lönnroth, H. See Aarnio, B.  
 Loeper, M., Degos, R., and Tonnet, J., formation of oxalic acid in tissues containing glycogen, A., 306.  
 Soulié, P., and Tonnet, J., insulin and oxalemia, A., 322.  
 and Tonnet, J., production of oxalic acid by *Tania*, A., 306.  
 Loesch, C. F., and N. V. "Oliefabriek Alkmaar," extracting means, (P.), B., 130.  
 Loesch, H. G., and Gen. Foods Corp., pectin preparation, (P.), B., 683.  
 Loesche, H. W. von. See Mottern, H. H.  
 Loeser, A. See Eitel, H., and Kuhn, P.  
 Loetscher, E. C., composite material [artificial wood], (P.), B., 621.  
 Loew, M. See Orno-Ornfeldt, E.  
 Loew, O., strontium and the physiological function of calcium, A., 90.  
 Löwa, A. See Wilborn, F.  
 Loewe, B., reeling-off silk cocoons, (P.), B., 1051.  
 Löwe, F., optical determination of water content of marmalades, jams, and fruit jellies, B., 763. Recognition of quartz particles in dust, B., 1009.  
 Loewe, S., highly emissive cathodes for electric-discharge apparatus, (P.), B., 752.  
 Löwenberg, K. See Fischer, F. G.  
 Löwit, R., and Deuts. Glühfadefabr. R. Kurtz & Ing. P. Schwarzkopf G.m.b.H., electric-discharge tube, (P.), B., 636.  
 Loewy, A., and Cronheim, G., chemistry of skin, A., 296. Infiltration of fat into the liver, A., 423. Colouring matter of butter, B., 603.  
 Löwy, H., dielectric constant of Volkenroda, A., 1000.  
 Lofland, E. M., pigments, (P.), B., 799.  
 Logan, J. E. See Murneek, A. E.  
 Logan, K. H., protection of pipes against soil action, B., 920.  
 Logemann, W. See Bersin, T.  
 Loginov, S. P. See Budnikov, P. P.  
 Lohmann, H. See Staudinger, H.  
 Lohmann, K., behaviour of phosphatase in presence of glutathione and iodoacetic acid, A., 863. Phosphorylation and dephosphorylation; production of natural hexose monophosphates from their components, A., 863. Poisoning with iodoacetic acid of the lactic acid enzyme and methylglyoxalase, A., 863.  
 Lohrengel, W. See Dietrich, K. R.  
 Lohse, H. W., and Ruhnke, G. N., readily soluble phosphate in soils. I. Extraction of readily soluble phosphate from soils by means of dilute acid potassium sulphate. II. Vertical distribution in representative Ontario soils, B., 725.  
 Loiseleur, J., and Velluz, L., preparation and properties of proteo-cellulose membranes, A., 22. Preparation and properties of protein-cellulose rayon, B., 13.  
 See also Florence, G.  
 Lokshin, V., acid-proof enamelled apparatus. VI., B., 867.  
 Loleit, H. See Paneth, F.  
 Lomax, J., standardisation in textile testing, B., 55.  
 Lombard, C. See Ingraham, R. C.  
 Lombard, M., analysis of oils; determination of the hexabromide index, B., 155.  
 Lombard, V., and Eichner, C., permeability of palladium to hydrogen, A., 218. Diffusion of hydrogen through palladium; influence of pressure, temperature, and purity of metal, A., 776.  
 Lombardi, M. See Szegö, L.  
 Lombroso, U., and Di Frisco, S., specific dynamic action of food. II. Gas exchange after administration of carbohydrates in different animals, A., 419.  
 Lommel, W. See I. G. Farbenind.  
 Lo Monaco, G., problem of the identity of pancreas-lipase and pancreas-esterase, A., 426.  
 London, E. S., and Kotschneff, N. P., nature of phloridzin diabetes. I. Metabolism of individual organs after administration of phloridzin, A., 746.  
 London, W. J. A., and Peabody Eng. Corp., apparatus for pulverising materials, (P.), B., 608.  
 London Brick Co. & Forders, Ltd. See Ratcliffe, G. H. C.  
 London Power Co., Ltd., and Pearce, S. L., treatment of flue gases, residual trade gases, etc., (P.), B., 97. Scrubbers for use in treatment of gases, (P.), B., 817.  
 Long, C. H. W., apparatus for determining moisture content of flour, corn, beet pulp, tobacco, etc., (P.), B., 816.  
 Long, J. S., Rheineck, A. E., and Ball, G. L., jun., drying oils. XVII. Influence of several factors on mechanism of drying of oil films, B., 1016.  
 See also Beal, G. F.  
 Long, M. See Crippa, G. B.  
 Long, T. A., and Potts, W. W., crushing of fracturing machinery, (P.), B., 335.  
 Long, T. H. See Westinghouse Electric & Manufg. Co.  
 Longchambon, H. See Longchambon, L.  
 Longchambon, L., and Longchambon, H., vanadinite from Hérival (Vosges), A., 253.  
 Longenecker, J. B. See Fetzer, W. R.  
 Longinescu, G. G., new methods in analytical chemistry, A., 920.  
 Longinescu, I. N., comparative chemistry. I. General introduction. II. Classifications, A., 920.  
 Longinov, V., and Lerman, K., preparation of isobutyl bromide, A., 1033.  
 Longinus, J. B., paraffin in petroleum bitumen, B., 179.  
 Longo, G., formation of azides from the *N*-nitroso-derivatives of hydrazo-compounds, A., 1156.  
 Longworth, L. G. See MacInnes, D. A.  
 Longwell, B. B., Hill, R. M., and Lewis, R. C., relation of vitamin-B complex to renal enlargement caused by cystine and protein in the diet of the rat, A., 324, 433.  
 Lonsdale, T. See Denham, W. S.  
 Lonza Elektrizitätswerke & Chemische Fabrik Akt.-Ges., preparation of mixed manures containing ammonium nitrate, (P.), B., 86. Double salts of calcium nitrate, (P.), B., 105. Artificial textile materials, artificial straw, tubes, strips, etc., (P.), B., 143, 344.  
 Levi, G. R., and Benaglia, G., increasing the affinity of cellulose esters for dyes, (P.), B., 187.  
 Lüscher, E., and Stirnemann, E., distributable and non-caking fertilisers containing calcium nitrate, (P.), B., 600.  
 Loofbourow, J. R. See Heyroth, F. F.  
 Loofmann, H. See Alten, F.  
 Loomis, A. G. See Ambrose, H. A.  
 Loomis, C. C., treatment of dolomitic stone, (P.), B., 918.  
 Loomis, E. G., vacuum mixing machine, (P.), B., 3.  
 Loomis, F. W., and Fuller, H. Q., enhancement of iodine absorption spectrum by the admixture of oxygen, A., 1095.  
 Loomis, G. A., use of auxiliary fluxes in dinnerware bodies, B., 867.  
 Loomis, N. E., and Standard Oil Development Co., cracking of hydrocarbons, (P.), B., 139. Apparatus for cracking reduced crudes, etc., (P.), B., 378. Preparation of hydrocarbon products, (P.), B., 616. Separation of cracked hydrocarbon material, (P.), B., 854.  
 Tomlinson, A. H., and Standard Oil Development Co., cracking of [hydrocarbon] oil, (P.), B., 854.  
 See also Howard, F. A.  
 Loomis, R. N. See Bogen, E.  
 Loomis, W. E., and Burnett, K. H., photosynthesis in maize, A., 757.  
 Loomis, Stump, & Banks. See Bank, H. W.  
 Loon, J. van. See Steger, A.  
 Loonam, A. C. See Gleason, G. H.  
 Loose, L., and Pearsall, W. H., synthesis of protein by green plants, A., 436.  
 Lopatina, E. P. See Razuvaiev, G. A.  
 López, M. O. See Clavera, J. M.  
 López, R. C., rapid test for sucrose in milk, B., 843.  
 Lorand, E., higher fatty acid esters of cellulose and starch. II., A., 150.  
 Lorand, E. J., and Pennsylvania State College, concentrated coffee products, (P.), B., 523.  
 Lorch, A. E. See Hammett, L. P.  
 Lorch, K., jun., and Farr, E., production of transparent films, sheets, artificial glass, etc., from hydrate cellulose, with or without metal or textile fabric stiffening, (P.), B., 826.  
 Lord, J. O., "reboiling" [of enamels on sheet metals], B., 965.  
 Lord, W. E. See Gramophone Co.  
 Lorentsen, L. I., centrifugal mineral separator [and amalgamator], (P.), B., 834.  
 Lorenz, F. W., Almquist, H. J., and Hendry, G. W., malvaceous plants as a cause of "pink white" in stored eggs, B., 762.  
 See also Almquist, H. J.  
 Lorenz, H., determination of sucrose and lactose in sweetened condensed milk, B., 330.  
 Lorenz, M. See Kisser, J.  
 Lorenz, R., theory of rosin sizing [of paper], B., 343.  
 and Stopp, R., filler uptake of unsized paper, B., 301.  
 Lorenzen, C., and Bendix Aviation Corp., utilisation of waste heat, (P.), B., 368.  
 Lorenzen, G., water-gas production in the coke oven, B., 257.  
 Loring, H. S., and Du Vigneaud, V., mesocystine, A., 1149.  
 See also Du Vigneaud, V.  
 Loring, R. A. See Green, J. B.  
 Lorthioir, P., experimental leucocytosis and blood-sugar regulation, A., 1190.  
 See also La Barre, J.  
 Lory, E. C., catalytic activity of chromites for the oxidation of carbon monoxide, A., 912.  
 Losana, L., fluidity and pourability of very light alloys, B., 310.

- Losev, K. I., and Naidis, J. G., decomposition of sodium sulphate by hydrogen, A., 793.
- and Nosenko, causticising sodium sulphate by the cyclic process, using baryta, B., 747.
- Loskiewicz, L., cementation experiments with Cu-Be, Cu-Si, Ag-Si, Ag-Be, Au-Be, and Au-Si, B., 470.
- Loskutov, F. M., metallurgy of lead, B., 921.
- Lossev, O. V., photo-electric effect in specially active layers of a carborundum crystal, A., 662.
- Lothian, G. F. See Twyman, F.
- Lothrop, R. E., and Gertler, S. L., determination of amino-acids and related compounds in honey, B., 490.
- Lotmar, W., fluorescence of sulphur dioxide, A., 886.
- Lott, R. V., fruiting responses of the peach to applications of sodium nitrate, A., 198.
- Lotter, P. See Bernoulli, A. L.
- Lottermoser, A., and Chang, T. Y., physico-chemical investigations on ferric oxide sols. I. Charge of ferric oxide sols on dilution. II. Charge in irregular series, A., 1116.
- and Lottermoser, E., ageing of oxide hydrates, A., 787.
- and Püschel, F., conductivity and potential measurements with salts of higher alkylsulphuric acids, A., 677.
- and Schladitz, E., measurements of surface tension of solutions of sodium and potassium salts of higher fatty acids by the ring method. I. and II., A., 672, 774.
- and Stoll, F., surface and interface activity of salts of fatty alcohol sulphuric esters, A., 458.
- Lottermoser, E. See Lottermoser, A.
- Louder, E. A., and Pet Milk Co., [electrical] sterilisation of liquids, (P.), B., 985.
- Loudon, J. D., mercury derivatives of camphor. I. Constitution of Reyckler's acid, A., 963.
- Loughlin, W. J., denaturation of proteins. X. Acid and alkali titration curves of crystalline ovalbumin. XI. Effect of denaturation on capillary activity of solutions of proteins, A., 568.
- Lougovoy, B. N., and Chadeloid Chem. Co., composition for selectively removing [nitro-cellulose lacquer] top coatings; heavy-bodied finish remover containing a corrective of anti-penetration; finish remover containing methyl acetate; composition to remove shellac; low-wax non-hydrocarbon finish remover; non-benzolic finish remover containing chlorinated hydrocarbons; finish remover containing chlorinated hydrocarbon wax solvent, (P.), B., 720. Paint and varnish removers, (P.), B., 837.
- and Ellis-Foster Co., enolic acetone derivatives from a mixture of acetone and its enolic form, (P.), B., 296. Lacquer and lacquer-enamel containing certain petroleum products, (P.), B., 316. Rigidifying composition [hair fixative], (P.), B., 781.
- Louis, and De La Hitte, Baumé-Vigneron viscosimeter, B., 367.
- and Peyrot, determination of absolute viscosity, B., 1043.
- and Rollin, specific heats of [viscous] oils, B., 949.
- Louisville Club, glycerol phthalate resins in quick-drying house paints, B., 1017.
- Loury, M., acetylenic alcohols; ethyl  $\alpha$ -hydroxy- $\alpha$ -diphenylbutylenoate, A., 712.
- Lousinian, M. B. See Gilman, H.
- Louttit, J. E., and Records, E. H., distillation of coal, (P.), B., 692.
- Louveau, G., ageing of, and changes in, essential oils, B., 92, 605. *Cheimonanthus fragrans*, B., 92. Preservation of citrus essences, B., 605. Hop oil, B., 927.
- Louw, J. G. See Du Toit, P. J.
- Lovas, L. See Baló, J.
- Love, K. S. See Emmett, P. H.
- Love, W. H., photometric determination of X-ray quality, A., 891.
- Lovejoy, E., water movement in stiff-mud ware and its relation to drying, B., 965.
- Lovelace, F. E. See Carpenter, D. C.
- Loveless, A. H., properties and applications of timber, B., 107. Materials of chemical plant construction. IV. Iron and steel, B., 335.
- Davie, T. A. S., and Wright, W., corrosion of lead, B., 590.
- and Wright, W., effect of pressure on equilibrium in the system  $C_2H_4 + H_2O \rightleftharpoons EtOH$ , A., 674.
- Lovell, O. H., vegetable weevil (*Listroderes obliquus*), B., 324.
- Lovell, R. See Clutterbuck, P. W.
- Lovell, W. G., Campbell, J. M., and Boyd, T. A., knocking characteristics of naphthene hydrocarbons, B., 995.
- Loveluck, R. J. See Imperial Chem. Industries.
- Lovering, E. W., and Brown Co., [water-proof coating] composition, (P.), B., 677.
- Lovern, J. A., fat metabolism in fishes. I. Fatty acid composition of the fats of a number of fishes. II. Peritoneal, pancreatic, and liver fats of the sturgeon (*Acipenser sturio*), A., 183.
- Edisbury, J. R., and Morton, R. A., variations in vitamin-A content of fish-liver oils and seasonal fluctuations in potency of halibut-liver oil, A., 1339.
- and Sharp, J. G., diet of halibut and intensity of feeding in relation to vitamin-A potency of liver oil, A., 1339.
- See also Edisbury, J. R.
- Low, F. S., and Westvaco Chlorine Products, Inc., hydrochloric acid, (P.), B., 463.
- Low, G. W., jun. See Allen, N., Furman, N. H., and Johnson, Clyde R.
- Low, K. S., production of multi-coloured artificial cellulosic materials in the form of sheets, bands, or films, (P.), B., 783.
- Low Temperature Carbonisation, Ltd., Bristow, W. A., and Postlethwaite, J. P., retorts for distillation of coal and other carbonaceous substances, (P.), B., 294.
- Lowdon, A. S. R. See Alston, J. R.
- Lowe, M. See Koch, H. E.
- Lowenfeld, M. F. See Widdows, S. T.
- Lowery, H., refraction of gaseous acetaldehyde and ethyl acetate, A., 10.
- Lowery, Hugh, and Standard Oil Co., removal of wax from hydrocarbon oils, (P.), B., 775.
- Lowig, E., influence of potassium salt anions on mycelium growth of *Aspergillus niger*, A., 188. Influence of potassium ion and associated anions on resistance of cereals to *Erisiphe graminis*, B., 646.
- Lowndes, J. See Plimmer, R. H. A.
- Lowry, C. D., jun., Dryer, C. G., and Universal Oil Products Co., treatment of motor fuel, (P.), B., 821.
- Egloff, G., Morrell, J. C., and Dryer, C. G., inhibition in cracked gasoline. II. Correlation of inhibiting action and oxidation-reduction potential, B., 691.
- See also Egloff, G.
- Lowry, R. A. See Barnett, E. de B.
- Lowry, T. M., free radicals and ions as factors in chemical change, A., 1138.
- and Hudson, H., optical rotatory power. IV. Rotatory dispersion of bornyl and menthyl xanthates, especially in the region of absorption, A., 889.
- See also Hudson, H.
- Lowson, W. See Dawson, H. M.
- Lowy, A. See Levin, D. E., and Martin, S. M., jun.
- Loyarte, R. G., excitation potential of the argon atom, A., 655.
- and De Bose, M. H., optical potentials of the mercury atom; so-called ultra-ionisation potentials, A., 880.
- Lozier, W. W., heats of dissociation of hydrogen and nitrogen, A., 1237.
- Lozovski, M. See Vanscheidt, A.
- Lu. See Travers, A.
- Lub, W. A., polarisation of the light emitted from the particles in movement and at rest in the canal rays of hydrogen, A., 761.
- See also Curie, (Mme.) P.
- Lubarskaja, L. S., nitrogen metabolism of sugar-beet seedlings: dependence on the ammonia- and nitrate nutrition, A., 647.
- Lubatti, O. F., determination of ethylene oxide, B., 94.
- See also Page, A. B. P.
- Lubbock, I., oil fuel in brick industry, B., 136.
- Lubelsky, B. L., and Safety Mining Co., heating cartridge, (P.), B., 733.
- Luber, A. See Müller Ernst.
- Lubiteleva, A. Z. See Kogan, I. M.
- Lubman, N. M., froth formation and flotation ability of powders in solutions of surface-active substances, B., 193.
- Lubowsky, S. J., and Metal & Thermit Corp., titanium white, (P.), B., 800.
- Lubs, H. A. See Du Pont de Nemours & Co., E. I.
- Lubszynski, G. See Knoll, M.
- Lucas, A., Beam's colour test for hashish, B., 1083.
- Lucas, C. C., and King, E. J., iodometric titrations of cysteine and allied substances, A., 266.
- Lucas, H., emission spectrum analysis and its practical application, A., 1259.
- Lucas, H. J., and Liu, Y. P., nitration of *p*-cresol and *p*-tolyl carbonate in presence of sulphuric acid, A., 499.
- Lucas, H. P. See McBain, J. W.
- Lucas, J. H., and Nichols Copper Co., treatment of materials such as [electrolytic copper] metal powder, (P.), B., 235.
- Lucas, N. S., production of vitamin-D by irradiation of ergosterol through rat's epidermis, A., 645.
- Lucas, O. D., and Whessoe Foundry & Eng. Co., heat-exchange devices in which liquids are heated in the liquid phase, (P.), B., 992.
- Lucas, R., thermal variation of abnormal magnetic birefringence, A., 765.
- and Biquard, P., optical properties of solid and liquid media under ultrasonic elastic vibrations, A., 15.

- Lucas, R., and Schwob, M., anomalous dispersion of magnetic and electric birefringence, A., 448. Abnormal electric and magnetic birefringence, A., 889.
- Lucas, R. H., disposal of dangerous fluids, (P.), B., 371.
- Lucas, S. H. See Imperial Chem. Industries.
- Lucas, V., physico-chemical properties of *p*-aminophenol methosulphate, A., 707.
- Lucas, W. W., and Abrahams, H. J., transition points of salt hydrates in various non-aqueous solvents, A., 569.
- See also Abrahams, H. J.
- Lucchetti, E. See Baiardo, N.
- Lucchi, L., determination of free lime in cements containing asbestos, B., 549.
- Lucia, S. P. See Greenberg, D. M.
- Luck, J. M., and Morse, S. W., effects of insulin and adrenaline on amino-acid content of blood, A., 1336.
- See also Arnold, A., Brown, M. G., Davis, B., and Leopold, H. G.
- Lucke, C. E., and Babcock & Wilcox Co., heat treatment of coal, (P.), B., 692. Oil stills, (P.), B., 952.
- Lucke, H., anti-insulin and other hormones of anterior pituitary gland, A., 643.
- and Frey, J., excretion of nitrogen by the bile, A., 737.
- Heydemann, E. R., and Hechler, R., anterior pituitary hormone with specific effect on carbohydrate metabolism, antagonistic to that of insulin, A., 1210.
- and Hückel, R., growth-promoting action of anterior pituitary extracts, A., 431.
- Luckemeyer-Hasse, L., and Schenck, H., solubility of hydrogen in metals and alloys, B., 65.
- Luckhaus, E., and Röhm & Haas Co., cold-dressing and drying of leather, (P.), B., 724.
- Luckow, C., de-acidification of spirits, B., 121. [Notes] from the A.T.L. [Abteilung für Trinkbranntwein und Likörfabrikation] laboratory, B., 648.
- See also Wüstenfeld, H.
- Luco Products Corporation. See Smith, L.
- Ludany, G. von, and Verzár, F., bilirubin metabolism. II. Influence of the spleen on bilirubin content of the blood-serum, A., 309.
- See also Kokas, E. von.
- Ludewig, S. See Chanutin, A.
- Ludewig, W., determination of the degree of gasification (Ausgasungsgrad) of cokes, B., 994.
- See also Bunte, K.
- Ludlam, E. B. See Ritchie, A.
- Ludloff, H., and Reymann, G., rôle of electron orbit impulses in ferro-magnetic lattices, A., 449.
- Ludmila, J., m.p. of ashes from several Czechoslovakian brown coals by the Dolch-Pöchmüller method, B., 496.
- See also Simek, B. G.
- Ludwiczakówna, R., Suszko, J., and Zwierzchowski, R., eupreidine, the phenolic base corresponding with quinidine, A., 1312.
- See also Jarzyński, L., and Konopnicki, A.
- Ludwig, W., "bleeding" of pigments in oil films, B., 157.
- Ludwigen, M., printers' ink, (P.), B., 478.
- Lübke, E. See Pfeiffer, P.
- Lübke, E., mercury vapour discharge, A., 2.
- Lueck, R. H. See McConkie, J. E.
- Luecke, F. M. G., cheese, (P.), B., 604.
- Lüdecke, G., and Graphitwerk Kropfmühl A.-G., production of porous or permeable coatings for use in galvanic cells, (P.), B., 752.
- Lüdecke, H. See Krüger, W.
- Lüdi, F., electron release in cathode spots of an arc discharge, A., 761.
- Lüttke, M., organisation of plant-cell membranes, A., 330. Cell walls and their value in textile chemistry, B., 423.
- and Achmed, H., substance causing withering in plants, A., 546.
- See also Schaffnit, E.
- Lüers, H., sterilisation in brewing by the catadyne process, B., 88.
- and Hüttinger, W., barley-husk protein, A., 620.
- and Lechner, R., action of papain on barley and malt and extracts of these; ageing of amylase solutions, A., 426. Mechanical trituration of starch, and its decomposition by amylase, B., 280. Electrodialysis of amylase solutions, B., 327.
- Lueg, P. See Scheib, W.
- Lühr, [treatment of lactic cultures], B., 681.
- Lühr, W. See Schröder, H.
- Lüke, J., and Fricke, R., decomposition of nitrous oxide on glowing platinum and platinum-iridium, A., 575.
- See also Fricke, R.
- Lünig, O., and Brohm, K., alkali-alkaline underground water from the chalk formation, A., 1267.
- and Kovacz, S., cause of bitter taste of [flour]-milling products, B., 408.
- Lüppo-Cramer, desensitising [with] sensitizers, A., 35. Activation of nuclei, A., 35. Lattice disturbances, A., 35. Silver chromate [in photographic emulsions], A., 1127. Highly disperse [photographic] emulsions. II., A., 1255. Thallium in silver bromide [photographic emulsions], B., 44. Ripening and sensitisation of silver iodide [in photographic emulsion], B., 44. Unexplained fog formation [in photographic emulsions], B., 44.
- and Steps, H., topography of the latent X-ray image, A., 915.
- Lüers, H., and Rümmler, W., development of amylase during germination of barley, B., 1030.
- Lüscher, E. See Lonza Elektrizitätswerke & Chem. Fabr. A.-G.
- Lüttgen, A. J., tearing strength in cellulose testing, B., 13.
- Lüttringhaus, A., vitamin-C, A., 872.
- See also Windaus, A.
- Lüttringhaus, H. See Ziegler, K.
- Luft, K. F., variation of dielectric constants of bromine and iodine chloride vapours with temperature and pressure, A., 1000.
- Luft, M. G. See Soie Artif. de Gand Soc. Anon., "Sarga."
- Luft, O. v. d., and Schwindt, C. J., [preparation of] granular [crystalline] organic material, (P.), B., 857.
- Luftschitz, H., when are crushed gneiss and granite injurious as [cement] addenda? B., 1010.
- Lugg, J. W. H., application of phospho-18-tungstic acid (Folin's reagent) to colorimetric determination of cysteine, cystine, and related substances. I. Reduction of phospho-18-tungstic acid by various substances. II. Determination of thiol compounds and disulphides already existing in solution, A., 266.
- Lugg, J. W. H., Sullivan's reaction for determination of cysteine and cystine, A., 814. Sources of error in determination of cysteine and cystine in complex materials, using acid hydrolysis, A., 1039.
- Lühr, O., nature of gas ions, A., 1098.
- Luikov, A. V., and Kolesnikov, A. G., theory of depth of evaporation surface in drying of flat bodies, B., 767.
- Lukanow, H., and Schütze, W., mass spectrograph giving parabolic lines of greater sharpness, A., 801.
- Luke, C. D. See Lewis, W. K.
- Luke, C. E. See Yeasties Products, Inc.
- Lukens, H. S., and Solidon Products, Inc., magnesium oxide mixtures, (P.), B., 707.
- Lukeš, R., action of Grignard's reagent on *N*-methylpyrrolidone; synthesis of substituted pyrrolines, A., 955.
- and Smetáčková, M., electrolytic reduction of *N*-methylglutarimide, A., 512.
- Lum, E. A., differentiation of sucrose, glucose, and lactose, B., 38.
- Lumang, H. E., and Villanueva, J. S., effect of cane molasses on nitrate content of a clay loam soil, B., 482.
- Lumière, A., and Sonnerly, S., magnesium thiosulphate and blood coagulation, A., 846.
- Luminous Tube Lighting Corporation. See Jacobsen, A. E.
- Lummus Co., and Coubrongh, G. B., division of petroleum bottoms, (P.), B., 695.
- See also Coubrongh, G. B.
- Lumsden, C. H. See Imperial Chem. Industries.
- Lund, H., pyridylnitropyrazole, an oxidation product of nicotine; position of the nitro-group, A., 840.
- Lundborg, M., vitamin-A content of blood of cows and oxen, A., 432. Effect of heat on vitamin-A content of milk, A., 541.
- Lunde, G., Scharrer, K., and Schropp, W., feeding trials with herring and cod meals for fattening pigs. II., B., 410.
- and Stiebel, F., fluorescence of olive oils, B., 513.
- Lundegårdh, H., nutrient intake of cereals and cause of non-parasitic diseases, B., 1027.
- and Burström, H., respiration and ion intake [by plants], A., 543. Absorption of salts by plants. III. Quantitative relations between respiration and absorption of anions, A., 874.
- Lundell, G. E. F., chemical analysis of things as they are, A., 920. Chemical analysis of glass, B., 915.
- Lundin, H., electrolytic zinc: determination of small amounts of germanium, B., 751.
- Lundquist, O.,  $Ka_1a_2$  doublet of chlorine in different compounds, A., 108. X-Ray emission spectra and chemical binding. II. Investigation of the  $Ka_1a_2$  doublet of chlorine, A., 760.  $Ka_1a_2$  doublet of phosphorus, A., 1221.
- Lundsgaard, E., effect of phloridzin on absorption of glucose, A., 1076. Inhibition of esterification by phloridzin, A., 1076.
- Lundstrom, H. M., and Bard, P., pituitary control of skin pigment in elasmobranch fish, A., 869.
- Lunelund, H., ultra-violet radiation and U-glass, B., 465.
- Lunskaia, N. P. See Palkin, A. P.

- Lunt, G. P., and Badger & Sons Co., E. B., chlorination of organic compounds, (P.), B., 216.
- Lure, S., preparation of a standard solution of "chloride of lime" [for determining hardness of sulphite cellulose], B., 104.
- Lurie, D. See Schoenthal, L.
- Lurie, H. H., and Sherman, G. W., flame temperatures of combustible gas-oxygen mixtures, B., 417.
- Lurie, J. M. See Binns, F. W.
- Lurie, S. See Fichter, F.
- Lusby, O. W., catalysts for production of oxygenated organic compounds, (P.), B., 1009.
- Luschenowsky, A. See Briske, P.
- Lush, R. H., seasonal composition of pasture grasses, B., 599. Composition of early pasture legumes and grasses, B., 986.
- and Gelpi, A. J., cotton seed for dairy cows, B., 363.
- Luster, E. W., and Standard Oil Development Co., operation of cracking-coil installations [for hydrocarbon oils], (P.), B., 539.
- Luster, G. See Strube, J.
- Lustig, A., and Reiss, M., evaporation phenomena of mercury droplets and their influence on elementary electric charge, A., 111.
- and Söllner, A., photophoresis of silver particles, A., 224.
- Lustig, B., and Mandler, E., composition of the lipins of normal and diseased organs. IV. Composition of the lipins of the corpus luteum, ovary, testis, and epididymis of cattle. V. Lipins of carcinomatous, sarcomatous, and tuberculous human lymph glands. VI. Lipins of human melanotic carcinoma and sarcoma, A., 736, 970.
- See also Perutz, A.
- Luther, M., and Klein, Hans, oxidation of liquid hydrocarbons, (P.), B., 540.
- Lutwak, H. See Walter, G.
- Lutz, F., metal [mercury] vapour electric-discharge apparatus [rectifier], (P.), B., 73.
- Lutz, G. See Du Pont de Nemours & Co., E. I., and Grasselli Chem. Co.
- Lutz, J. M. See Rose, D. H.
- Lutz, O., Klein, R., and Jirgenson, A., isomerisation products of pyridine salts of unsaturated acids, A., 1169.
- Lutz, R. E., and Small, L. F., reductions in the morphine series. I. Dihydro- $\psi$ -codeine, A., 170.
- and Taylor, R. J., unsaturated  $\alpha\delta$ -dicarbonyl compounds. VII. Unsaturated arylated  $\alpha\delta$ -diketones and ketonic acids derived from citraconic and mesaconic acids, with particular reference to the  $\beta$ -(p-bromobenzoyl)-methylacrylic acids. VIII. Derivatives of dimethylfumaric acid. IX. Unsaturated aryl- $\alpha\delta$ -diketones and -ketonic acids derived from dimethylmaleic and -fumaric acids, A., 502, 594, 607.
- Lux, F., apparatus [electrode] for electro-metric determination of  $p_H$ , (P.), B., 926.
- Lux, H. See Stock, A.
- Luyken, W., maintenance of German blast furnaces with native iron ore, B., 108.
- and Kaiser Wilhelm Inst. für Eisenforschung, magnetic treatment of iron ores, (P.), B., 393.
- Luzanski, N. See Hassel, O.
- Luzzatti, C. See Fical, C.
- Lvov, A., carbon nutrition of *Polytoma uvella*, A., 536. Nutrition of trypanosomes, A., 983.
- Lyden, R., thallium iodides, A., 361.
- Lyder, E. E. See Strout, A. L.
- Lye, R. J. See Chattaway, F. D.
- Lyford, C. A., and Nat. Aniline & Chem. Co., recovery of alcohol from alcoholic caustic fusions, (P.), B., 217.
- Lyle, A. K., and Sharp, D. E., colour changes in flint glass, B., 866.
- See also Flint, F. C.
- Lyman, C. M. See Williams, R. J.
- Lyman, J. F. See M. & R. Dietetic Laboratories.
- Lyman, K. E., and Borg-Warner Corp., oil cooler and filter, (P.), B., 952.
- Lymn, A. H. See Gas Chambers & Coke Ovens, Ltd.
- Lynch, C. C., jun. See Glowaski, R. C.
- Lynch, C. S., and Collett, A. R., electrolytic oxidation of coal, B., 132.
- Lynch, D. F. J., and Goss, M. J., bagasse cellulose, B., 12.
- and Reid, J. D., ketoneiminc dyes and their derivatives, A., 826.
- Lynch, G. E., air and gas filters, (P.), B., 657.
- Lynch, L. P., and Nodder, C. R.,  $p_H$  values of hypochlorite solutions, A., 39.
- Lynn, E. V., and Nakaya, S., leaf oils of Washington conifers. VI. *Abies nobilis*, B., 571.
- See also Tsao, D.
- Lynn, G., Allen, Merle, Beecher, B. K., and Darbyshire, R. W., production of hydrogen sulphide and thiosulphates, B., 784.
- Allen, E. M., Beecher, B. K., and Pittsburgh Plate Glass Co., hydrogen sulphide, (P.), B., 626.
- and Pittsburgh Plate Glass Co., cement, (P.), B., 270.
- Lyon, A. J., aluminium casting alloy, (P.), B., 635.
- Lyon, A. V. See Jewell, W. R.
- Lyon, D. M. See Eason, J.
- Lyon, T. L., and Bizzell, J. A., nitrogen accumulation in soil, B., 643. Lysimeter experiments with ammonium sulphate and sodium nitrate, B., 933.
- Lyons, H. N., and Doherty Research Co., purification of liquids [alcohols from petroleum products], (P.), B., 138.
- Lyons, J., and Pyne, G. T., factors affecting the body or viscosity of cream and related matters, B., 1080.
- See also Finlay, W., and Pyne, G. T.
- Lyons & Co., Ltd., J., and Hughes, E. B., cementitious surfacing material, (P.), B., 589.
- Lyth, R., relation of carcinogenicity of mineral oils to physical and chemical characteristics of these oils, A., 970.
- Lytle, W. O., and Duplate Corp., laminated glass, (P.), B., 787.
- Lyubarski, E. I., conjugated hydrogenation, B., 476.
- Lyubin, B. O., and Velichkovski, A. V., optimum reaction for refinery syrups, B., 761.
- Lyubinskaya, G. P., purification of [electrolytic] chlorine from hydrogen, B., 864.
- Lyubitzki, K. K. See Zelikman, I. F.
- Lyutin, A. V., and Kiryushkin, V. A., dispersion analysis of graphite-oil suspensions, B., 850.
- Lyutin, L. V., and Zakharova, G. V., preparation of stable graphite suspensions, B., 850.
- Zakharova, G. V., and Kiryushkin, V. A., water-soluble preparations of colloidal graphite, B., 850.

M.

- M.-O. Valve Co., Ltd., Benjamin, M., Rausley, C. E., and Smithells, C. J., oxide-coated thermionic cathodes, (P.), B., 926.
- M. & R. Dietetic Laboratories, Inc., and Lyman, J. F., treatment of liquid milk products and other phosphate-containing aqueous solutions, (P.), B., 731.
- See also Otting, H. E.
- Ma, C. M. See Wilson, S. D.
- Ma, S. Y. See Sah, P. P. T.
- Ma, T. S., Hoo, V., and Sah, P. P. T., phenolic acids. IV. Benzyl salicylate and its derivatives, A., 1049.
- See also Li, Y. H., and Sah, P. P. T.
- Ma, Y. C. See McIntosh, J. F., and Montelius, G.
- Maas, F., and Mano, W., coating and sealing composition, (P.), B., 336.
- Maas, J. See Kersten, H.
- Maas, J. H., and Ewing, C., critical ignition of explosive hydrogen mixtures, A., 231.
- Maas Chemical Co., A. R. See Bowman, F. C.
- Maas & Waldstein Co. See Klinkenstein, G.
- Maase, E., recent patterns in open-hearth furnace crowns, B., 191.
- Maass, O., and Richardson, R., dynamic photo-electric relative opacimeter, B., 835.
- See also Grace, N. H., Grieve, A. D., Linton, E. P., Macklin, L. S., Morris, H. E., Richardson, R., Sanderson, H., Tapp, J. S., and Winkler, C. A.
- Maass, W., determination of hard and soft asphalt, resin, paraffin-free oil, and paraffin in bitumen, B., 418.
- Maby, J. C., identification of woods and [wood] charcoals, B., 429.
- MacAdam, D. L., focus of a concave grating spectrograph, A., 689.
- McAdam, J., jun., [electrical] tension-corrosion of metals, B., 510.
- McAdoo, T. O., and Internat. Silica Corp., treatment [removal of silica from] silica-bearing materials, (P.), B., 266. Aluminium hydrate [from shale], (P.), B., 267.
- McAfee, A. McD., and Gulf Refining Co., aluminium chloride, (P.), B., 427.
- Macaigne, (Mlle.) R., photographic method of determining absorption of  $\beta$ -rays, A., 883.
- McAlevy, A. See Milas, N. A.
- McAlister, E. D., intensities in the ultra-violet spectrum of mercury, A., 200. Absolute intensities in the visible and ultra-violet spectrum of a quartz mercury arc, A., 201.
- and Unger, J. H., water-vapour absorption spectrum in the near infra-red, A., 207.
- McAlister, L. C., dusting experiments to control the blueberry maggot, B., 484.
- Macallum, A. D., and Roessler & Hasslacher Chem. Co., odorant for refrigeration, (P.), B., 768.



- McAlpine, K. B., and Smyth, C. P., polarity in hydrocarbon vapours, A., 339.  
See also Smyth, C. P.
- Macarovici, (Mme.) M. See Tanasescu, I.
- Macarthur, A. See Imperial Chem. Industries.
- McAulay, A. L., and Spooner, E. C. R., unique electrode potential characteristic of a metal, and a theory for the mechanism of electrode potential, A., 28.
- McBain, A. See Barton-Wright, E.
- McBain, J. W., physical unreality of the terms used in cataphoresis and the fictitious  $\zeta$ -potential, A., 778.  
and Field, M. C., phase equilibria of acid soaps. I. Anhydrous acid potassium laurate. II. Anhydrous acid sodium palmitates, A., 901, 1011.
- Good, S. J., Bakr, A. M., Davies, D. P., Willavoys, H. J., and Buckingham, R., sorption of vapours by nitrocellulose, A., 1242.
- Kawakami, Y., and Lucas, H. P., ultra-filtration of soap solutions, A., 901.
- and McBain, M. E. L., fundamental assumptions and equations of electrokinetics, A., 122. Sedimentation equilibrium in the ultracentrifuge; types obtained with soap solutions, A., 223.
- and McClatchie, W. L., behaviour of metallic soaps with organic solvents, A., 24. Dependence of the ultra-filtrate from a sol of "ferrie hydroxide" on rate of ultra-filtration; Donnan equilibrium and  $p_H$  of sols, A., 567.
- Porter, J. L., and Sessions, R. F., nature of the sorption of water by charcoal, A., 773.
- and Stewart, Alexander, phase-rule equilibria of acid soaps. III. Anhydrous acid potassium oleate, A., 1011. Conductivity in the three-component system oleic acid-potassium oleate-water, A., 1011.
- and Watts, O. O., structural properties of anisotropic solutions of soap as determined by a new centrifugal falling ball method, A., 224.
- and Williams, R. C., constitution of aqueous solutions of the hydrogen soap, cetylsulphonic acid, A., 780.
- McBain, M. E. L., diffusion of colloidal electrolytes; sodium oleate, A., 349.  
See also McBain, J. W.
- McBean, K. D. See Stimmel, B. A.
- McBride, R. S., chemical engineering problems in hardwood distillation, B., 496. Profitable by-product sulphur from city gas, B., 947.
- McCabe, W. L., heating asphalt with diphenyl vapour, B., 7.
- Mead, B., and Standard Oil Development Co., non-sludging [hydrocarbon] oil, (P.), B., 378.
- McCall, H. C. See Adams, A. S.
- McCall, R., seasonal variation in composition and digestibility of range bunch grasses, B., 986.
- McCallan, S. E. A., and Wilcoxon, F., form of the toxicity surface for copper sulphate and for sulphur, in relation to conidia of *Sclerotinia americana*, B., 727.
- MacCallum, A. E. G., grinding mills, (P.), B., 528.
- MacCallum, J. See Newnam, W. E.
- McCallum, S. P., and Klatzow, L., high-frequency discharges in argon. I. Electrical properties, A., 439. [Electrical] conductivity of mixtures of gases, A., 663.
- Klatzow, L., and Keyston, J. E., continuous spectrum of pure argon, A., 1. High-frequency discharges in argon. II. Spectral properties, A., 879.
- McCammon, R. B., Caulfield, W. J., and Kramer, M. M., calcium and phosphorus of cheese made under controlled conditions, B., 844.
- McCan, J. C. See Trout, G. M.
- McCance, R. A., and Lawrence, R. D., quebrachitol as a sweetening agent for diabetics, A., 1070.  
and Shipp, H. L., magnesium and other inorganic constituents of some marine invertebrates, A., 1184.  
See also Watchorn, E.
- McCandlish, D., and Atkin, W. R., prevention of deterioration of vegetable-tanned leathers, B., 932.
- McCann, J. See Mino, E.
- McCann, W. S. See Keutmann, E. H.
- McCarley, A. F., antimony trichloride test for vitamin-A, A., 99.
- McCarrison, R., mineral metabolism and "stone," A., 301.  
and Madhava, K. B., effects of high-protein diets on thyroid gland iodine, A., 177.  
and Sankaran, G.,  $p_H$  in organs and body-fluids of scorbutic guinea-pigs, A., 1192.
- McCarron, R. D., and Rowland, B. W., influence of particle size [and] distribution in clays on hand sheet and coating characteristics, B., 620.
- McCarthy, D. L., soap, (P.), B., 156.
- McCarthy, F. See Cohn, D. J.
- McCarthy, (Miss) I. B. See Algar, J.
- McCartney, E. R. See Ragatz, E. G.
- McCaskell, J. A., continuous filter, (P.), B., 448.
- McCaughy, W. J. See Fisk, H. G.
- McCay, C. M., continuous extractor of large capacity, A., 690.  
See also Maynard, L. A.
- McCay, L. W., reduction of antimonite acid in hydrochloric acid solution with mercury, A., 246.
- McChesney, E. W., liquid ammonia as a medium for the study of organic compounds, A., 803.
- Macchia, O., most common defects shown by [electro]deposits of nickel, B., 710.
- Macciotta, E., electronic theory and substitution in benzene, A., 385. Körner's benzene formula and modern theory, A., 385. Nitroamines. V., A., 387.
- McClatchie, W. L. See McBain, J. W.
- McClaughry, R. S., and Standard Oil Co., grinding compound, (P.), B., 269.
- McCleary Bros., Inc. See Speer, W. K.
- McClellan, W. S., and Wardlaw, H. S. H., hypoglycemia following glucose ingestion, A., 88.
- McClelland, E. W. See D'Silva, J. L.
- McClelland, J. A. C., and Smiles, S., halogen derivatives of dehydro- $\beta$ -naphthol 1-disulphide, A., 947.
- McClelland, W. R. See Traill, R. J.
- McClendon, J. F., mathematical formula for chemical analysis in a two-phase system, A., 581. Iodine and goitre in the Far East, A., 1190.
- McCloskey, G. E., and Barrett Co., fume arresters for cupola furnaces, (P.), B., 711.
- McCluer, W. B., and Fenske, M. R., gravity index for lubricating oils, B., 137.
- McClure, H. B. See Davidson, J. G.
- McClure, W. B., De Takáts, C. B., and Hinman, W. F., oedema or renal type, A., 853.
- McCollum, E. V. See Blumberg, H., Kruse, D. H., Sharples, G. R., and Weisberg, S. M.
- McComb, H., utilising by-products of iron and steel plants [to produce iron oxides], (P.), B., 674.
- M'Combe, J., sparking of coal-cutter pick tool steel in explosive firedamp mixtures, B., 590.
- McCombie, H. See Buchan, S.
- McConkie, J. B., Lueck, R. H., and Amer. Can Co., inhibiting [internal] corrosion [of food cans], (P.), B., 751.
- McConnell, A. F., and Permutit Co., purification of viscose, (P.), B., 103.
- McConnell, J. R. See Black, J. C.
- McCool, M. M., effect of various factors on  $p_H$  of peats, B., 162. Effect of thallium sulphate on growth of several plants and on nitrification in soils, B., 1028.
- McCormack, R. B. See Blodgett, F. M.
- McCormick, F. H., Schwartz, G. L., and Celastic Corp., absorbent paper, (P.), B., 302.
- MacCorquodale, D. W., Levin, L., Thayer, S. A., and Doisy, E. A., oxidation of theelin and thecelol derivatives, A., 1054.  
Thayer, S. A., and Doisy, E. A., purification and constitution of thecelol, A., 278.
- McCowan, W. See Dunlop Rubber Co.
- McCoy, E. See Williams, F. T.
- McCoy, J. P. A., varnish-like material, (P.), B., 928.  
See also Allis-Chalmers Manufg. Co.
- McCrea, T. R., removal of organic-bound iron from highly coloured water, B., 846.
- McCrea, W. H., and Newing, R. A., boundary conditions for the wave equation, A., 909.
- McCready, D. W. See Thomassen, L.
- McCreath, D. See Patterson, T. S.
- McCubbin, A. A., Zaveritnik, J., jun., and Grimm, W. W., distillation of petroleum oils, (P.), B., 953.
- McCullagh, D. R., Cuyler, W. K., and Frawley, J. T., origin of comb-growth-promoting substance in male urine, A., 322.  
and Van Alstine, L., phosphates in the sugar-tolerance test, A., 180.
- McCulloch, A. See Kay, H.
- McCulloch, E. C., germicidal efficiency of sodium hydroxide, B., 766.
- McCullough, J. F. K., Gilchrist, B. W., and Ternstedt Manufg. Co., [copper]electroplating bath, (P.), B., 474.
- MacCurdy, J. T. See Mapson, L. W.
- McCutchan, W. N. See Christensen, L. M.
- McCutcheon, F. G., and Oneida Community, Ltd., recovering metals [indium and gallium] of the third periodic group, (P.), B., 312. Recovery of metals of the third periodic group, (P.), B., 873.
- McDaniel, E. I., gladiolus thrips (*Teniothrips gladioli*), B., 484. Propylene dichloride mixture controls clothes moths and carpet beetles in rugs and over-stuffed furniture, B., 1053. Spraying to control gladiolus thrips (*Teniothrips gladioli*, M. & S.) in Michigan, 1932, B., 1074.

- McDermott, F. A. See Du Pont de Nemours & Co., E. I.
- McDill, R. D. O., and Food Machinery Corp., treatment of fruit for market, (P.), B., 1034.
- McDonald, A., trade wastes from gasworks, B., 990.
- McDonald, (Miss) E. See Allen, A. J., and Waldschmidt-Leitz, E.
- Macdonald, F. See Allen, W. H.
- McDonald, F. G., and Massengale, O. N., antirachitic potency of eggs from hens receiving massive doses of activated ergosterol, A., 326.
- McDonald, G. A. See Woodstock, W. H.
- MacDonald, G. D. See Blacet, F. E.
- MacDonald, J. K. L., theory of uncoupling and iormule for the Stark effect in hydrogen, A., 547.
- Macdonald, R. T., and Rollefson, G. K., effect of foreign gases on the relative intensities of the mercury triplet  $2^3P_{0,1,2}$ — $2^3S_1$  under conditions of optical excitation, A., 332.
- See also Lewis, G. N.
- McDonald, W., treatment of water, employed in boilers, evaporators, and other systems, for the purpose of preventing scale formation, (P.), B., 369.
- McDonough, E. G. See Bogert, M. T.
- McDonough, F. L. See Tower, M. L.
- MacDougall, D. See King, J. G.
- MacDougall, D. P., heat capacity of methane, A., 452. Entropies of methane and ammonia, A., 453.
- MacDougall, F. H., and Blumer, D. R., activity of each component in aqueous solutions of sulphuric acid and acetic acid, A., 781.
- Lauer, W. M., and Spielman, M. A., kinetics of the rearrangement of  $\alpha$ -methoxystyrene, A., 1249.
- McDougall, J., calculation of the terms of the optical spectrum of an atom with one series electron, A., 107.
- and Hulme, H. R., photo-electric absorption of  $\gamma$ -rays by heavy elements, A., 1100.
- McDowell, A. K. R. See Joiner, W. A.
- McDowell, S. J., terra-cotta slip coatings, B., 387.
- McEachern, D. See Meyerhof, O.
- McElhaney, J. R., and Amer. Sheet & Tin Plate Co., pickling of ferrous metals, (P.), B., 873.
- McElvain, H. C. See McElvain, H. J.
- McElvain, H. J., and McElvain, H. C., rock crusher, (P.), B., 576.
- McElvain, S. M. See Briese, R. R., Cope, A. C., Drake, W. V., Howk, B. W., Karjala, S. A., Lease, E. J., Prill, E. A., Snell, J. M., and Strong, F. M.
- MacEwan, J. W. G., and Graham, V. E., butter-fat variations in cow's milk, A., 525.
- Macey, I. G. See Givens, M. H.
- Macfadyen, W. A., oilfield water analysis, B., 990.
- McFail, L. W. See Richards, C. W.
- McFarland, J. C., and Wadsworth Watch Case Co., decorating base metals or alloys of base metals, (P.), B., 433.
- McFarland, J. L. See Gen. Electric Co.
- McFarlane, A. S., application of compensated valve-voltmeter to measurements of glass electrode potentials, A., 926.
- MacFarlane, W., and Wright, R., binary liquid systems and the mixture rule, A., 345.
- McGarvey, S. M. See Thompson, W. R., and Wies, C. H.
- McGary, S. U. See Gill, S.
- McGavack, J., and Naugatuck Chem. Co., preservation of [rubber] latex, (P.), B., 597.
- See also Gen. Rubber Co.
- McGavran, J., and Rheinberger, M., specificity of intracellular dehydrogenases. IV. Effect of  $pH$ , A., 533.
- McGee, J. M. See Diggs, S. H.
- McGeorge, W. T., electrodialysis as a measure of phosphate availability in soils and relation of soil reaction and ionisation of phosphates to phosphate assimilation, B., 278. Phosphate availability in alkaline calcareous soils, B., 759.
- and Breazeale, J. F., relation of phosphate availability, soil permeability, and carbon dioxide to fertility of calcareous soils, B., 278. Phosphate solubility in unproductive calcareous soils, B., 279. Iron, aluminium, and organic phosphates and phosphate fixation in calcareous soils, B., 560.
- See also Breazeale, J. F.
- McGhee, H. See Improved Textile Rollers, Ltd.
- McGhee, J. L., and Lawrenz, (Miss) M., magnetic-optic minima of organic compounds, A., 889. Scale readings of isomeric esters on the magneto-optic apparatus, A., 1265.
- McGill, A. See Brit. Celanese.
- McGill, W. J., and Standard Oil Co., moth-proofing [of textiles], (P.), B., 188.
- See also Sullivan, F. W., jun.
- MacGillivray, C. H. See Smits, A.
- MacGillivray, W. E. See Colbeck, E. W.
- McGilton, G., and Industrial Patents Corp., rendering method [for fats, etc.], (P.), B., 156.
- McGowan, J. P., calcium and phosphorus metabolism, A., 871. Fundamental nature of vitamin-D-action, A., 871.
- McGraw, W., Adams, R. C., and Trumble Gas Trap Co., separation of crude petroleum and natural gas, (P.), B., 295.
- MacGregor, C. W., formation of localised slip layers in metals, B., 392.
- McGregor, G. H. See Kress, O.
- McGregor, P., and Fryd, C. F. M., determination of artificial silk (viscose) in mixtures of artificial silk and cotton waste, B., 342.
- Macgregor, R. G., and Thorpe, W. V., quantitative extraction of histamine from tissues by electrodialysis, A., 1184.
- McGregor, R. R. See Beal, G. D.
- McGroarty, W. J., and Nat. Foods, Ltd., bread, cakes, etc., (P.), B., 490.
- McGuire, W. H. See Courthope, T. F.
- Mach, F., report of [German] Committee on examination of feeding-stuffs, B., 444.
- and Claus, G., fish meal as a feeding-stuff. III. Examination of valuable constituents, purity, and freshness of fish meal, B., 444.
- and Herrmann, R., efficiency of the standard and new types of reflux condenser, A., 926. Effect of potash fertiliser salts and their components on the ionic exchange and dispersion of soils, B., 644.
- Mach, G. M., and Chadshinov, V. N., hydrogenation of heterocyclic compounds, A., 72.
- Macháček, V. See Landa, S.
- Machado, J. E., preparation of alcoholic tinctures of drugs; belladonna, B., 284.
- McHargue, J. S., and Calfee, R. K., manganese essential for growth of *Lemna major*, A., 328. Further evidence that boron is essential for growth of lettuce, B., 645.
- and Roy, W. R., mineral and nitrogen contents of leaves of forest trees at different times in the growing season, A., 327.
- and Young, D. W., iodine content of soil in Kentucky, A., 929. Iodine in water supply of Lexington, Kentucky, B., 414.
- Machatschki, F., crystal chemistry of the silicates, A., 1137.
- Maché, A. See Bayle, E.
- Machebœuf, A., Chefftel, H., and Blass, J., effect of nature of container on quality of preserves, B., 1032.
- Machebœuf, M. A., Chefftel, H., and Blass, J., colorimetric determination of small quantities of lead in organic matter in presence of tin, A., 621. Colorimetric determination of traces of lead in foodstuffs, B., 170.
- and Fethke, N., apparatus for continuous extraction in a vacuum, A., 1027.
- and Sandor, G., nature and stability of protein-lipin linkings in blood-serum; extraction of lipins by ether in presence of alcohol, A., 82.
- See also Basset, J.
- Machek, G., action of cyanogen on phenols and naphthols. II. Trihydroxybenzenes. III. Naphthols, A., 709.
- Machemer, H., transformation of esters of  $\gamma$ -keto-acids into pyridazine and pyrazoline derivatives, A., 837.
- See also Bergmann, M.
- Machen, C. See Brit. Coal Distillation, Ltd.
- McHenry, E. W., and Gavin, G., ammonia production during the histamine-histaminase reaction, A., 315.
- Machida, I. See Nagaoka, H.
- Machida, S., and Masunaga, K., proteolytic enzyme of pyloric caecum of *Scirola quinqueradiata*, A., 1331.
- Machinefabriek Gebrüder Stork & Co., N. V. See under N. V. Machinefabriek Gebr. Stork & Co.
- Macht, D. J., effect of methylene blue on phytotoxic reaction of normal and pathological blood, A., 854. Effect of radio vibrations on drugs, B., 524.
- and Harden, W. C., comparative pharmacology of condensation products of phenols with aliphatic aldehydes, A., 632.
- and Meyer, J. D., effect of eighteen normal aliphatic alcohols on growth of *Lupinus albus*, A., 653.
- Machu, W., corrosion passivity. I. and II. Covering layer on iron. III. Changes in the natural oxide film on iron during corrosion, B., 390, 709.
- McIlraith, E. J. See Neville, H. A.
- McIndoo, N. E., olfactory responses of blowflies, with and without antennae, in a wooden olfactometer, B., 653.
- McInerney, R. J., Williams, Eugene F., Glaze H. L., and Minerals Increment Co., apparatus for manufacturing volatile chlorides, (P.), B., 865.
- MacInnes, D. A., and Belcher, D., durable glass electrode, A., 689. Thermodynamic ionisation constants of carbonic acid [at 25°], A., 904.
- Shedlovsky, T., and Longworth, L. G., limiting mobilities of univalent ions and the dissociation constant of acetic acid at 25°, A., 28.

- McIntire, F. L. See Wagner, F. W.
- McIntire, W. H., Sanders, K. B., and Shaw, W. M., availability of hydrated lime, limestone, and dolomite of two degrees of fineness with supplements of red-clover hay, as measured by lysimeter leachings, B., 644.
- and Shaw, W. M., reactivity between dolomite and superphosphate components, B., 104.
- Young, J. B., and Shaw, W. M., base exchange induced by calcium, magnesium, and sodium nitrates in a six-foot column of soil-subsoil, B., 278.
- McIntosh, H. W., and Hartford-Empire Co., electric glass-melting tank, (P.), B., 674.
- See also Hartford-Empire Co.
- McIntosh, J., and Continental-Diamond Fibre Co., synthetic resin, (P.), B., 356.
- McIntosh, J. F., Montelius, G., and Ma, Y. C., mottled enamel and brown stain, A., 415.
- See also Montelius, G.
- McIntyre, A. R., and Sievers, R. F., effects of posterior-lobe pituitary extract on the serum and urine of normal dogs, A., 1337.
- McIntyre, G. H., and Ferro Enamel Corp., recovery of fluorides from enamel glass smelter gases, (P.), B., 547.
- Irwin, J. T., and Ammon, M. G., reliability of cross-bend, impact, and reflectivity data obtained from various sizes of test pieces [of enamelled iron], B., 705.
- Irwin, J. T., Carter, W. K., and King, R. M., effect of sodium aluminate on consistency and acid-resistance of some acid-resistant enamels, B., 705.
- Stuart, R. W., and Ferro Enamel Corp., apparatus for making glass and vitreous enamels, (P.), B., 548.
- McIntyre, H. K., and Cox, G. C., electric furnace [for ore reduction in fused electrolytes], (P.), B., 25.
- McIntyre, R., [laboratory] fractional distillation, A., 926.
- McIntyre, W. A. See Du Pont de Nemours & Co., E. I.
- MacIsaac, V. W., centrifugal separator, (P.), B., 688. Centrifugal machine, (P.), B., 688.
- McJunkin, F. A., and Hartman, C. D., concentration and purification of a growth inhibitor extracted from kidney, A., 1335.
- Mack, C., colloid chemistry of asphalts, B., 179.
- Mack, E., jun. See Hare, W. A., Shutt, R. S., Warrick, D. L., and Woodland, D. J.
- Mack, E. L., Bennett, C. W., and Bennett-Mack Corp., emulsion [for shaving], (P.), B., 798.
- Mack, J. E., and Stehn, J. R., concave grating spectrograph, A., 689.
- See also Borg, D., and Goble, A. T.
- Mack, M. J. See Fellers, C. R.
- Mack, W. B., and Livingston, B. E., relation of oxygen pressure and temperature to the influence of ethylene on carbon dioxide production and on leaf elongation in very young wheat seedlings, B., 839.
- McKaig, M. See Hurst, L. A.
- Mackay, E. M., factors which determine renal weight. XIV. Relative influence of amino-, urea-, and protein-nitrogen in the diet, A., 642.
- Mackay, E. M., and Bergman, H. C., rate of absorption of glucose from the intestinal tract, A., 974.
- Smith, F. M., and Closs, K., factors which determine renal weight. XIII. Heat production of the rat as varied by thyroid administration, A., 642.
- See also Deuel, H. J., jun., and Hall, E. M.
- McKay, W. B. See Roger, R.
- McKay Co. See Covell, B. S.
- McKee, R. H., [previous] paper, (P.), B., 665. Stimulating plant growth, (P.), B., 727.
- and Morse, E. H., treatment of vegetable fibres [for production of artificial wool], (P.), B., 1003.
- Morse, E. H., and Merz, A., depilatory compound [for toilet use], (P.), B., 1088.
- and Shotwell, J. S. G., new process for moisture control of paper, B., 859.
- and Tennessee Copper & Chem. Corp., acid phosphate [superphosphate], (P.), B., 625.
- McKeefe, E. P. See Bradley, L.
- McKeehan, L. W., conservation of energy and disintegration of Ra-E, A., 442. Magnetic dipole fields in dislocated cubic crystals, A., 766. Magnetic dipole fields in unstrained cubic crystals, A., 766. Magnetic dipole energy in homogeneously strained cubic crystals, A., 767. Magnetic dipole energy in hexagonal crystals, A., 767. Magnetic quadrupole field and energy in cubic and hexagonal crystals, A., 893. Magnetic dipole fields in unsaturated cubic crystals, A., 1231.
- See also Beck, F. J., jun.
- McKellar, A., mass ratio of the lithium isotopes from the spectrum of Li<sub>2</sub>, A., 994.
- See also Jenkins, F. A.
- McKelvey, J. B. See Booth, H. S.
- McKendrick, A. See Smith, R. P.
- McKenna, P. M., composition of matter [hard alloys], (P.), B., 70.
- and Vanadium Alloys Steel Co., composition of matter [tungsten-tantalum carbide alloy], (P.), B., 70.
- McKenzie, A., and Gow, (Miss) E. R. L., isomeric (—)menthyl  $\alpha$ -naphthylglycolates, A., 273. Walden inversion. XII. Displacement of hydroxyl by chlorine in the optically active ethyl  $\alpha$ -naphthylglycolates, A., 822.
- Mackenzie, A. S. E., tooth-phosphatase, A., 1332.
- Mackenzie, D. See Marcin, M. J.
- Mackenzie, J. E., and Melville, H. W., diffusion coefficients of bromine-argon, bromine-methane, bromine-hydrogen chloride, and bromine-nitrous oxide, A., 1110.
- Mackenzie, R. See Stein & Co., Ltd., J. G.
- McKeown, A. See Griffith, R. O.
- McKercher, (Sir) W. G., tea, (P.), B., 204.
- McKesson & Robbins, Inc., *n*-heptyl-phenol, (P.), B., 341. Medicinal [iron-copper-protein] preparation, (P.), B., 812.
- See also Fanto, E. C.
- Mackey, M. A. See Greenberg, D. M.
- McKibben, R. R., soil organic matter, B., 643.
- See also Shaw, G. T.
- Mackie, D. B., vacuum fumigation, B., 405.
- Mackinney, G., and Milner, H. W., carrot-leaf carotene, A., 1342.
- McKinney, P. V., reduction of palladium oxide by carbon monoxide, A., 134. Measurement of rate of adsorption at constant pressure, A., 470. Adsorption of gases on palladium oxide, A., 1112.
- and Morfit, E. F., [interaction of] platinum oxide and carbon monoxide, A., 913.
- McKinney, R. S. See Jamieson, G. S.
- McKinnis, R. B. See Continental Can Co.
- McKinnon, N. E., effect of cysteine on vaccine virus, A., 318.
- Mackintosh, J. See Golding, J.
- Macklin, L. S., and Maass, O., removal of lignin from spruce in concentrated sodium hydroxide solutions, B., 102.
- MacLachlan, J. C., and Hunt, A. P., dehydration of liquid material, (P.), B., 495.
- McLane, F. B., insecticide, (P.), B., 805.
- McLaren, J., probable causes of variable sizing in paper-making, B., 186.
- MacLaurin, I. M. See MacLaurin, R.
- MacLaurin, R., MacLaurin, I. M., and Blairs, Ltd., apparatus for scrubbing gas, (P.), B., 208.
- McLean, E. K. See Stand, C. J.
- McLean, H. C. See Weber, A. L.
- Maclean, K. B. See Caldwell, W. S.
- McLean, R. See Tibbets, D. M.
- MacLeester, W. T., methyl-*p*-aminophenol sulphate [metol], (P.), B., 54.
- MacLennan, F. W., apparatus for treating liquid with a gas, (P.), B., 449.
- and Matless Cell Patent Holding Corp., flotation apparatus, (P.), B., 25.
- McLennan, J. C., electric superconduction in metals, A., 117.
- and Quinlan, (Miss) F. M., interferometer measurement in the extreme ultra-violet region of copper, A., 2, 331.
- and Smith, H. D., Raman effects with liquid and solid carbon dioxide, A., 208.
- and Turnbull, R., broadening of the ultra-violet absorption bands of xenon under pressure, A., 440.
- and Wilhelm, J. O., permeability of quartz and Pyrex and other glass to helium, A., 347.
- MacLennan, J. S. See Lindwall, H. G.
- MacLennan, W. H. See Butler, J. A. V.
- McLeod, A. F. See Collin, G.
- MacLeod, M., and Robison, R., hydrolysis of hexose diphosphoric ester by bone-phosphatase; a new fructose monophosphate, A., 534.
- McLintock, W. F. P., metamorphism produced by the combustion of hydrocarbons in the tertiary sediments of S.W. Persia, A., 141.
- McMahon, E. See Stanley, W. M.
- McMaster, A. J., Parson, C. E., and G.-M. Laboratories, [cathode of] electronic [photo-electric] tube, (P.), B., 273. Photo-electric tube, (P.), B., 475.
- McMaster, H. J., Sebring Pottery Co., Limoges China Co., Crescent China Co., and Salem China Co., earthenware dishes and glaze therefor, (P.), B., 829.
- McMaster, N. B. See Gray, P. H. H.
- McMath, (Miss) A. M. See Read, J.
- McMeekin, T. L. See Wyman, J., jun.
- McMeeking, W., and Stevens, T. S., reduction of  $\alpha$ -amino-nitriles, A., 598.
- McMillen, J. H. See Hughes, A. L.
- McMillen, R. H., and Crncible Steel Co. of America, composite steel plate and bar, (P.), B., 472.

- Macmorran, G. H., solubility of calcium lactate, B., 384.
- McMorris, J., and Badger, R. M., heat of combustion, entropy, and free energy of cyanogen gas, A., 676.
- and Dickinson, R. G., photochemical reaction involving zinc oxide and oxygen, A., 36.
- McMurray, M. R. See Parkhurst, R. T.
- McMurtrey, J. E., distinctive effects of the deficiency of certain essential elements on the growth of tobacco plants in culture solutions, A., 650. Relation of calcium and magnesium to growth and quality of tobacco, B., 85.
- McNab, M. C. See Kharasch, M. S.
- McNabb, W. M., determination of cobalt in cobaltamines, A., 365.
- and Alsenzter, H. A., jun., crystal form of dinitrocobaltamines, A., 666.
- McNair, J. B., steam *versus* ether in the separation of acids from bacteriological media, A., 319. Duclaux method [for determination of volatile acids], A., 621.
- McNair, J. J. See Gortner, R. A.
- McNall, F. J. See Mitchell, L. C.
- McNally, E. See Titus, H. W.
- McNally, W. D., tar in cigarette smoke and its possible effects, A., 421.
- McNamee, P. D. See Theriault, E. J.
- Macnaughtan, D. J., Gardam, G. E., and Hammond, R. A. F., influence of composition and acidity of the electrolyte on characteristics of nickel deposits, B., 751.
- See also Gardam, G. E.
- McNaughtan, F. See Beckley, V. A.
- McNeil, C., filters [for saccharine or other solutions], (P.), B., 176.
- MacNevin, W. M. See Baxter, G. P.
- McNutt, J. D., and Winchester Repeating Arms Co., [non-corrosive] priming mixture [for shot shells], (P.), B., 125. Propellant explosive, (P.), B., 285.
- Maconachie, J. E. See Miller, W. L.
- Macovski, E., mechanism of hydrolytic degradation of sugars, A., 147.
- and Ramonteanu, E., heterocyclic acetylcholines, A., 1057.
- and Silberg, A., syntheses in the hormone series. II. Homoneurines of the *Cinchona* alkaloids, A., 169. Mechanism of C. Mayer's triphenylpiperidone synthesis, A., 720.
- See also Nitzescu, I. I., and Tanasescu, I.
- MacPhail, G. See Komarek, G.
- McPherson, A. I., radiation from moving helium, neon, and argon ions, A., 1223.
- McPherson, A. T. See Scott, A. H.
- McPherson, N. L., vitamin-A concentration of cod-liver oil correlated with age of cod, A., 870.
- McQuade, J. D., and Coal Carbonization Co., apparatus for carbonisation of coal, (P.), B., 692.
- McQuarrie, I., Bloor, W. R., Husted, C., and Patterson, H. A., blood-plasma-lipins in epilepsy. I., A., 852.
- Husted, C., and Bloor, W. R., blood-plasma-lipins in epilepsy. II., A., 852.
- See also Engel, Rudolf.
- MacQueen, D. E. See Martin, L. F.
- McQueen, D. M. See Hazel, F.
- Macrae, T. F., formation of hydrogen peroxide in catalytic dehydrogenation, A., 1019. Protoolytic enzymes of yeast, A., 1082.
- See also Gulland, J. M.
- Maeri, V., calcium hypochlorite [bleaching powder], B., 546.
- McRoberts, L. H., soluble solids in fruit products, B., 122.
- MacTavish, (Miss) J., wood-destroying fungi: biological study of dry rot (*Merulius lacrymans*), B., 429.
- MacWalter, R. J., and Barratt, S., estimating match-points in divided beam spectrophotometry, A., 1264.
- and Drummond, J. C., lipochrome pigments and vitamin-A in nutrition of young fish, A., 1338.
- See also Drummond, J. C.
- Macy, H., Coulter, S. T., and Combs, W. B., quantitative changes in microflora during manufacture and storage of butter, B., 248.
- Macy, I. G. See Hunscher, H. A.
- Maddock, S. J. See Trimble, H. C.
- Maden, J., treatment of moulded articles made from cement, concrete, artificial stone, etc., (P.), B., 149.
- Mader, A., and Bingenheimer, E., X-ray irradiation in mongolism and its effect on blood-cholesterol level, A., 416.
- Mader, E. O., effect of pressure and amounts of copper applied in spraying potatoes, B., 565. Evidence of stimulation of potatoes by Bordeaux mixture, B., 565.
- See also Blodgett, F. M.
- Maderni, P. See Fourneau, E., and Ruzicka, L.
- Madge, E. W. See Dunlop Rubber Co.
- Madgin, W. M. See Freeman, D., Glass, H. M., and Laybourn, K.
- Madgwick, E., properties of porous building materials. VI. An autographic apparatus for measuring rates of flow of water. VII. Problem of damp walls, B., 21.
- Madhava, K. B. See McCarrison, R.
- Madinaveitia, A., and Olay, E., separation of two desmotropic forms of some polyhydric phenols derived from naphthalene, A., 947.
- Madsen, C. B. See Jacobsen, J. C.
- Madsen, C. J. T., preparation of fluid extracts by diacolation, B., 43.
- Madsen, E. O. See Morgan, A. F.
- Madsen, E. R. See Asmussen, R. W.
- Maeda, T. See Sakai, K.
- Mändlen, H. See Heide, C. von der.
- Magaldi, F. See Padovani, C.
- Magaram, M. See Oparin, A.
- Magat, M., fluorides of low b.p., A., 16. Role of solvent in unimolecular reactions, A., 129. Two new Raman lines of water, A., 855.
- See also Bauer, E., and Wohl, K.
- Mage, J., and Batta, G., hydrofluoric acid and the toxic fog which occurred in the Meuse valley in 1930, B., 1055.
- Magid, L. See Husa, W. J.
- Magidov, S. S. See Ezrielev, I. M.
- Magidson, O. Y., alkaline separation of iodine, B., 146.
- and Grigorovski, A. M., formation of mesochloroacridines and mobility of chlorine in the meso-position, A., 721.
- and Menschikov, G., methylation of p-aminophenol, A., 270.
- and Strukov, I. T., derivatives of 8-aminoquinolino as anti-malarials. I. Effect of alkyl [groups] in position 6 on the chemotherapeutic properties, A., 956.
- Strukov, I. T., Delektorskaya, N., and Lipovich, I., quinoline derivatives for the treatment of malaria, A., 1071.
- Magill, M. A., and Brode, W. R., comparison between spectrophotometric and biological assay for vitamin-A content of fish-liver oils, A., 1088.
- Magill, P. La F., and Roessler & Hasslacher Chem. Co., treatment of hydrocarbons, (P.), B., 852.
- Magistad, O. C., volumetric potassium bromate-bromide titration of furfuraldehyde; effect of temperature, A., 1064.
- and Allen, O. N., effect of liming on growth of pigeon peas in Hawaiian soils, B., 1028.
- See also Farden, C. A.
- Magistris, H., hormone of the adrenal cortex, A., 320. Effect of a fat diet and of anterior pituitary extract on the liver glycogen of thyroidised rats, A., 1086. Follicular ripening and luteinising hormone in the anterior pituitary lobe of various animals, A., 1086. Fat metabolism hormone of the anterior pituitary lobe, A., 1210.
- Magnan, C. See Bierry, H.
- Magnavox Co., and Tytzer, H. J., electrolytic condensers, (P.), B., 73.
- Magnesium Development Corporation. See Wood, R. T.
- Magnetic Gauge Co. See Schuster, P. B.
- Magnus, A., and Giebenhain, H., adsorption of sulphur dioxide and carbon dioxide at small equilibrium pressures, A., 563.
- Magnus, H., apparatus for vacuum dehydration of hydrocarbons, (P.), B., 52.
- Magnusson, H. P. See Snyder, R. S.
- Magnusson, H. See Jundell, I.
- Magnusson, T., N-series for the elements 73 Ta to 81 Tl. I., A., 3.
- Magoun, G. L., and Rubber Service Labs. Co., vulcanisation accelerator [for rubber], (P.), B., 515. [Inhibitor for] bath for metal-pickling processes, (P.), B., 553.
- Magyar Ruggyantaárugyár Részvénytársaság, ornamentation of rubber articles, (P.), B., 437.
- See also Anode Rubber Co.
- Mahajan, L. D., influence of disturbing factors and temperature on liquid droplets formed at the surface of the same liquid, A., 223. Action of light on surface tension of soap solutions, A., 900. Liquid drops on surface of the same liquid, A., 1002. Theory of phenomenon of liquid drops on surface of same liquid, A., 1113.
- Mahal, H. S., and Venkataraman, K., some 4-styrylcumarins, A., 831.
- Mahant, S. D., oxidation of sulphur dioxide in electrodeless discharge, A., 131.
- Mahanti, P. C., band spectra of MgO, CaO, and SrO, A., 207. Band spectra of barium oxide, A., 444.
- Mahdi, M. A. H. E., and Channon, H. J., absorption of n-hexadecane from the alimentary tract of the rat, A., 1325.
- Mahdihassan, S. See Bamann, E.
- Mahla, K., band system of SrO in the near infra-red, A., 552.
- Mahler, G. T. See Bunce, Earle H.
- Mahr, C., volumetric determination of bismuth, A., 1025. Colorimetric determination of bismuth, A., 1134.
- Maiden, A. M. See Keffler, L. J. P.
- Maier, H., reactivity of synthetic lecithin and its anti-sera, A., 1183.
- Maier-Bode, H. See Binz, A.

- Maige, A., physico-chemical heterogeneity of plastids, A., 438.
- Maignon, F., comparative effect of electrolysis on diastase and inactivated protein solutions, A., 187.
- and Croizé, D., do  $pH$  changes play a part in loss of activity of diastase solutions submitted to prolonged electrolysis? A., 187.
- Mail, G. A., soil-temperature installation, B., 482.
- Mailhe, A., transformation of benzene, toluene, and *m*-xylene into methane, A., 152. Thermal decomposition of cyclohexane and cyclohexene in presence of silica gel, A., 703.
- Maillard, A., effect of high temperatures on mineral oils, B., 292.
- Main, E. R. See Locke, A.
- Main, H., determination of reducing sugars in raw sugars, etc., by the pot method, B., 121. Use of pure glucose for standardising Fehling's solution, B., 326.
- Main, J. S., and Oil Reclamation Co., purification of oil, (P.), B., 854.
- Maina, R., artificially improving characteristic indices of butter by addition of glycerides of the lower fatty acids, B., 409.
- Maino, M., effect of follicular hormone on pregnancy, A., 194. Post-mortem uterine findings after temporary hormonal sterilisation, A., 643. Hormone content of the corpus luteum and action of luteinic extracts, A., 1338.
- Mainz, and Mühlendyck, W., absorptive capacity of luxmase, bog-iron ore, mixtures thereof, and other iron oxides, for hydrogen sulphide, B., 305.
- Mairlot, E. See Del Fresno, C.
- Maison Camus-Duchemin Société Anonyme. See Mauger, J. G.
- Maison G. de Navarre, and Ruszkowski, S., turtle oil, B., 878.
- Maizels, M., permeability of erythrocytes to chloride, A., 623.
- See also Smith, J.
- Majer, E. H., and Reisner, H., influence of various organic acids on ability of the rat's liver to store carbohydrate, A., 975.
- See also Fürth, O.
- Majer, V., polarographic determination of the alkali metals, A., 583. Gravimetric and polarographic determination of total alkali, A., 688. Kinetics of the precipitation of small amounts of mercury by iron and copper, A., 787. Application of polarographic method to rapid determination of small quantities of alkalis, especially in silicates with high aluminium content, A., 1024.
- Majewska, (Mlle.) Z. See Centnerszwer, M.
- Majofs, J. C. See Elmanovitch, N. A.
- Major, R. H., and Lilly & Co., E., blood-pressure-lowering substances, (P.), B., 605.
- Major, R. T., and Cline, J. K., preparation and properties of *n*-alkyl ethers of  $\beta$ -*n*-alkylcholine salts, A., 813.
- See also Addinall, C. R.
- Majorana, E., direction-quantised atoms in a variable magnetic field, A., 111. Theory of the nucleus, A., 660.
- Majorana, Q., new photo-electric experiment, A., 114. New photo-electric phenomenon, A., 555.
- Majrich, A., esters of nitric acid, A., 1273. New method of initiation [of explosives], B., 989.
- See also Krauz, C.
- Majumdar, D. N., and Guha, P. C., Indian medicinal plants. I. *Withania somnifera* [winter cherry]. II. *Swertia chirata*, A., 1216.
- Majumdar, M. See Mukherjee, J.
- Makarov, S. See Gorski, I.
- Makarov, S. Z., solubility isotherms and ice field of the ternary system  $\text{Na}_2\text{CO}_3$ - $\text{NaCl}$ - $\text{H}_2\text{O}$ , A., 782.
- Makarova, L. G. See Nesmejanov, A. N.
- Makarova - Semlianskaja, N. N. See Schorigin, P. P.
- Makgill, R. H. See Haldane, J. S.
- Maki, Tanekiyo, behaviour of the lungs in intermediate chlorine metabolism, A., 976.
- Maki, Toshio, influence of phenols on the violanthrone fusion. I. Separation of products of fusion. II. Properties of the products. III. Action of phenol at various temperatures, B., 261, 458. Indanthrene fusion. VII. Indanthrene-A, -B, and -C. VIII. The reddish-brown impurity in 2-aminoanthraquinone, B., 379, 741.
- and Nagai, Y., vat dyes of the benzanthrone series. V. Preparation of Bz-1-chlorobenzanthrone. II., A., 1297. Influence of phenols on the violanthrone fusion. IV. Preparation of 7-chlorobenzanthrone, B., 741.
- and Yoshida, M., anthraquinonazo derivatives. VI. Water-soluble azo dyes from 1-aminoanthraquinone-sulphonic acids and J-acid. VII. Water-soluble azo dyes from 1-aminoanthraquinonesulphonic acids and  $\gamma$ -acid, B., 741.
- Makino, H., tetrahydroxybufostan, a tetrahydric alcohol  $\text{C}_{27}\text{H}_{48}\text{O}_4$  from winter-bile of toads, A., 1166.
- See also Shimizu, T.
- Makino, Y. See Komatsu, S., and Ozawa, S.
- Makishima, S. See Kameyama, N.
- Makover, S. V. See Nametkin, S. S.
- Makow, M., manufacture and applications of hydrogen peroxide, B., 145.
- Makower, B., and Liebhatzky, H. A., verification of a mechanism involving a reactive intermediate compound; rate of oxidation of oxalate by hypobromous acid, A., 573.
- Makris, K. W., determination of free sulphuric acid in leather, B., 277.
- Maksimov. See under Maximov.
- Malaš, B., titanium in Moravian soils. I., B., 560.
- See also Novák, V.
- Malan, A. I., and Du Toit, P. J., mineral metabolism. XXI. Comparison of phosphatic supplements for prevention of aphosphorosis, A., 530.
- See also Du Toit, P. J.
- Malanowicz, L., action of pyridine bases on coal, B., 98.
- Malcolm, D. See Read, J.
- Malezynski, S., effect of infra-red rays on blood-cholesterol, A., 294. Variations in mineral elements of blood as affected by irradiation with rays intermediate between ultra-violet and X-rays, A., 979. Variations in blood-cholesterol immediately after a single irradiation with rays intermediate between ultra-violet and X-rays, A., 979.
- Borysiewicz, A., and Toczyski, T., effect of irradiation on mineral constituents of blood, A., 313.
- Malette, J., laboratory apparatus for fractional distillation of road tars, B., 900.
- Malevskaja, S. See Krestinski, V.
- Malhotra, R. C., composition of kapok seeds, B., 75.
- Malik, K. S. See Ahmad, B., and Hughes, T. A.
- Malinowski, V. E., Petrov, N. K., and Kuznetsov, V. I., extraction of sugar from dry cossettes by cold water, B., 681.
- Malinowski, V. S. See Razuvaiev, G. A.
- Malisoff, W. M., and Atlantic Refining Co., hydrocarbon oil refining, (P.), B., 1045.
- and Marks, E. M., thermal behaviour of sulphur compounds in hydrocarbon solvents. II. *n*-Butyl sulphide in benzene, A., 932.
- Maljarov, K. L., and Gluschakov, A. J., solubility of calcium oxalate in salt solutions, A., 897.
- and Matskievitch, V. B., colorimetric determination of iodine by means of chloroform, A., 582.
- Malkin, T., rotating molecules and the liquid-crystalline state; X-ray examination of long-chain esters, A., 1107.
- Malkomesius, P. See Helms, W.
- Malkov, A., influence of iron on aerobic alcoholic fermentation, A., 428. Role of phosphate in alcoholic fermentation and in respiration of yeast, A., 865. Role of phosphate in oxidations. I. Activity of catalase in phosphate solutions. II. Peroxidase activity in phosphate solutions, A., 980. Influence of hydrogen peroxide on determination of glucose by Bertrand's method, A., 1037.
- Petina, A., and Zwetkova, N., agglutination of yeast, A., 1082.
- Mallery, T. D. See Shreve, F.
- Mallinckrodt Chemical Works, filling and scaling ether or similar perishable material in cans or similar containers, (P.), B., 421.
- Mallison, H., cold tars, B., 658.
- Mallmann, W. L., and Cary, W., bacteriological methods of testing and means of disinfecting water with chlorine, with particular reference to swimming-pool water, B., 846.
- Malloch, J. G. See Larmour, R. K.
- Mallon, M. G., Johnson, L. M., and Darby, C. R., calcium retention on a diet containing leaf lettuce, A., 1195.
- Mallory & Co., Inc., P. R. See Shoemaker, H., Sieger, G. N., and Weiger, J. A.
- Malm, C. J., Andersen, A., and Eastman Kodak Co., low-viscosity cellulose esters, (P.), B., 301.
- and Eastman Kodak Co., treatment [changing the solubility] of cellulose acetate, (P.), B., 585. Photographic film with antihalation coating, (P.), B., 733.
- See also Clarke, H. T., and Kodak, Ltd.
- Malm, E. N. See Galadshiev, M. A.
- Malm, F. S. See Western Electric Co.
- Malm, K. G. See Lindgren, H. O.
- Malm, L. E. See Taft, R.
- Malm, M. See Euler, H. von.
- Malmberg, M. See Euler, H. von.
- Malmstrom, H. E., magnetic properties of thin nickel films, A., 768.
- Malmy, M., micro-burette, A., 690.
- Malomakhova, T. A. See Aleshin, S. N.

- Malone, J. G., and Malone, M. G.,  $pH$  of gelatin solutions, A., 349.
- Malone, M. G. See Malone, J. G.
- Malotaux, R. N. M. A. See Straub, Jan.
- Malowan, S. L., influence of re-aeration of air on glutathione content of the liver, A., 423. Determination of serum-proteins, A., 1065. Titration with fluorescence indicators, A., 1132.
- Malozemoff, P. See Gaudin, A. M.
- Malsallez, P., [electroically] detecting, controlling, and analysing gases, mixtures of gases, smokes, and dusts suspended in gases, (P.), B., 973.
- Malss, H. See Ostwald, Wolfgang.
- Maltzeva, A. See Arbusov, B. A.
- Maly, J., rational analysis of nickel-plating salts, B., 1063.
- Malyarov, K. L., comparing waters by data obtained by incomplete analysis, B., 526.
- Malyatski, A. B., rapid analysis of alkaline sludge, B., 292.
- and Margolis, L. Y., solubility of naphthene acids in water and determination of their dissociation constants, A., 1245.
- Mameli, E., and Cultrera, R., composition of parmesan cheese, B., 730. Vitamins of milk, cheese, curds, and whey, B., 1031.
- and Mannessier-Mameli, A., polymorphism. V. Ternary systems  $\alpha$ - and  $\beta$ -monochloroacetic acid-phenol-naphthalene, A., 465.
- and Mossini, A., action of organic compounds on alcoholic fermentation. III. Compounds with condensed nuclei and their reduction products, A., 751.
- Mamoli, L., tryptophan in the haemolymph of the silkworm, A., 1315.
- Man, E. B., and Gildea, E. F., effect of ingestion of a large amount of fat and of a balanced meal on blood-lipins of normal man, A., 294. Modification of the Stoddard and Drury method for determination of fatty acids in blood-serum, A., 295.
- and Peters, J. P., determination of serum-cholesterol adapted to the Man and Gildea fatty acid method; determination of lipin-phosphorus, A., 1064.
- Manago, S. See Sobue, H.
- Manahan, E. H., and Johann, A. C., bleaching composition and process, (P.), B., 912.
- Manby, J., celluloid impressions of surface structure of animal fibres, A., 625.
- Mancean, P., behaviour of *Penicillium glaucum* growing in Raulin-type solutions with increasing additions of aluminium chloride, A., 428.
- See also Bretin, P.
- Manchester Oxide Co., Ltd., Clayton, R. H., and Skirrow, F. W., purification of impure sulphur, (P.), B., 267.
- Clayton, R. H., Williams, H. E., and Avery, H. B., purification of sulphur or sulphur-bearing material [spent oxide], (P.), B., 267.
- Manchey, L. L., phytochemistry of *Gillenia stipulata*, A., 989.
- Manchot, I. P., induced reactions and higher oxides of iron, A., 685. "Blue acid" of the lead chamber process. II., A., 919.
- [with Schmid, Hans], "blue acid," A., 240.
- and Düsing, J., tervalent rhenium and univalent ruthenium, A., 581.
- Manchot, W., and Düsing, J., analogy between iron and ruthenium: sodium ruthenitropentacyanide, A., 581.
- and Pflaum, W., mechanism of oxidation processes and the oxidation of ferrous salts by hydrogen peroxide, A., 476.
- Mandahl, T. F. See Svenska Ackumulator Aktieb. Jungner.
- Mandelbaum, M. R., and Gray Processes Corp., [apparatus for] refining of hydrocarbons, (P.), B., 378.
- See also Nisson, P. S.
- Mandelgrin, E. L. See Budnikov, P. P.
- Mander-Jones, B., and Trikojus, V. M., synthesis of bases allied to coniine. I. Preparation and pyrolysis of allyl ethers of *N*-heterocyclic enols, A., 836.
- Manderscheid, H., formation of urea in vertebrates, A., 976.
- Mandl, K., testing cigarette papers for elasticity, B., 301.
- Mandlebar, M. R. See Townsend, D. T. A.
- Mandler, E. See Lustig, B.
- Mandour, A. M. M. See Ingold, C. K.
- Mandrino, G. See Rebek, R.
- Mandrysch, E. See Mattis, H.
- Manegold, E., physics of membranes, A., 22.
- and Engelhardt, W. von, capillary systems. XII (2). Calculation of material content of homogeneous filter structures. I. Sphere planes and sphere layers as structural elements of homogeneous sphere lattices. II. Building of homogeneous sphere lattices (co-ordination numbers 13—2) from sphere planes and layers and calculation of their material content. XII (4). Calculation of material content of heterogeneous structures. I. Material content of regular binary sphere-aggregates of type AB. XVI (1). Passage of a jet of material particles through a framework, A., 458, 672, 1113.
- and Hofmann, Remigius, short-circuit electrolysis. I. Electrolytic decomposition of a liquid layer hanging freely between rotating cylindrical electrodes, A., 472.
- and Stüber, C., capillary systems. XIV (2). Dynamics of plasmolysis. I. Mathematical treatment of semi-permeable protoplasts. XV (1). Cohesion and adhesion in ideal and real sphere packing, A., 672, 774.
- Manelski, E., citrus fruits, B., 44.
- Manery, J. F., Warbritton, V., and Irving, L., development of an alkali reserve in *Fundulus* eggs, A., 1326.
- Manganese Bronze & Brass Co., Ltd. See Sherwood, C. F.
- Mangels, C. E., and Bailey, C. H., relation of concentration to action of gelatinising agents on starch, A., 674. Relative viscosities of wheat starches, B., 486.
- See also Waldron, L. R.
- Mangelsdorf, T. A. See Poole, J. W.
- Manger, J., pharmacology of soaps, A., 422.
- Mangini, A., alcohol and sugar content of olive press-water. II. and III., A., 104; B., 927. Extraction of olive oil, B., 927.
- and Labellarte, F., primary tar of olive sansa [exhausted husks], B., 1042.
- See also Finzi, C.
- Manion, L. W., muffle kiln, (P.), B., 767.
- Manjean, (Mlle.) S. See Wolff, R.
- Manjunath, B. L. See Jois, H. S.
- Manley, J. J., precision weights, A., 927.
- Manley, R. E., and Texas Co., dewaxing of hydrocarbon oil, (P.), B., 378. Treating hydrocarbon oil, (P.), B., 852.
- Manlove, Alliot & Co., Ltd. See Trenear-Thomas, H.
- Mann, A., zinc white and its fineness, B., 156.
- Mann, F. C. See Priestley, J. T.
- Mann, F. G., complex metallic salts of sulphamide: an optically active inorganic salt, A., 580.
- Mann, H. B. See Skinner, J. J.
- Mann, M. D., jun., and Standard Oil Development Co., [effecting] heat transfer, (P.), B., 448.
- Mann, R. J. See Brit. Celanese.
- Mann, T., mechanism of deamination in skeletal muscle, A., 1330.
- See also Ostern, P.
- Mann, W. B., and Stephens, R. W. B., bubble formation in glass tubes, A., 223.
- Mannens, M. J. See Pieters, H. A. J.
- Mannes, L. See Braun, J. von.
- Mannessier-Mameli, A., action of hydroxylamine on saccharin, on some of its derivatives, and on 3-thion-1:2-benzodithiole, A., 288.
- See also Mameli, E.
- Mannich, C., crystallised *Digitalis* glucoside, (P.), B., 1036.
- and Budde, H., synthesis of substances related to ephedrine, A., 156.
- and Chang, F. T., synthesis of organic bases with triple linking, A., 387.
- and Lesse, K. T., *N*-alkylated 1:5-aminoketones and their conversion into piperidine derivatives, A., 399.
- and Reichert, B., synthesis of quinoline derivatives with basic side-chains, A., 400.
- Manning, W. R. D. See Colbeck, E. W.
- Mano, G., diminution of velocity of  $\alpha$ -particles in hydrogen, A., 883. Retardation of  $\alpha$ -particles, A., 883.
- Mano, W. See Maas, F.
- Manoilov, E. O., chemical diagnosis of pregnancy, A., 416.
- Mansfeld, G., influence of intravenous injection of diastase on the blood-sugar of normal and depancreatized animals, A., 410. Apparatus for graphical recording of oxygen consumption and carbon dioxide elimination, A., 1180.
- Manskaja, S. See Oparin, A.
- Manske, R. H. F., alkaloids of fumaraceous plants. I. *Dicentra canadensis*, Walp. II. *Dicentra cucullaria* (L.), Bernh. III. A new alkaloid, bicuculline, and its constitution. IV. *Adlumia fungosa*, Greene. V. Constitution of *adlumine*. VI. *Corydalis sempervirens* (L.), Pers. VII. *Dicentra eximia* (Ker), Torr., A., 105, 617, 728, 841, 990.
- Manskopf, H., gas as fuel for a calcining oven, B., 1042.
- Manson, G. J., and Manson Chem. Co., waterproofed fibrous product [waxed paper or board], (P.), B., 700, 1052. Waterproofing of paper; fibrous product, (P.), B., 1052.
- Manson Chemical Co. See Manson, G. J., and Maze, A. E.
- Manta, I., extinction curves of alkaloids of the quinoline group, A., 1227.
- Manteifel, A. Y. See Schaposchnikov, V. N.
- Mantell, C. L., carbon; neglected material of construction for reaction equipment, B., 1.



- Manteuffel, R. See Borsche, W.  
 Mantzev, B. M. See Berlin, L. B.  
 Manuelli, C., salts of diguanide and of guanidine, A., 940.  
 Manufacture B. Zundel, and Lantz, L., [dyeing with a] brown condensation and oxidation product of *m*-aminophenol, B., 461.  
 and Rébert, C., [printing] para-red, using a nitrosoamine, B., 425.  
 Manufactures of Machines Auxiliaires pour l'Electricité et l'Industrie, and Texier, D. A. L., means permitting of evaporating or of degasifying *in vacuo* continuously a liquid contained in any vessel or apparatus, (P.), B., 530.  
 Manunta, C., metabolism of fats in the caterpillar of *Galleria mellonella*, A., 857.  
 Manville, I. A., and Chuinard, F. G., vitamin studies on pears. I. Vitamins A and -C in winter Nclis and d'Anjou [pears] after prolonged storage, A., 1090.  
 Manville Jenckes Co. See Lockhart, G. R.  
 Manwaring, W. H. See Kurtz, A. C.  
 Manzoni-Ansidei, R. See Bonino, G. B.  
 Mapag Maschinenfabrik Augsburg-Plattling Akt.-Ges., and Frankl, M., decomposition of gas mixtures with low evaporation point, (P.), B., 993.  
 Mapara, H. M., and Patel, A. M., effect of glycine and alanine on insoluble salts of silver and lead, A., 670.  
 Mapson, L. W., deficiency disorder induced in young suckling rats bred on a purified synthetic diet with "Glaxo casein" (caseinogen) as sole source of protein, A., 1087.  
 MacCurdy, J. T., Nolan, H. O., and Cambio Products, Ltd., concentrated [nitrogenous] edible products [from animal tissue and separation of fats therefrom], (P.), B., 91.  
 Marañon, J., nitrogen distribution in leaves of Philippine camphor trees, A., 197.  
 Marbot, C. F., morphology of laterites, A., 253.  
 Marcelet, H., examination of cholesterol by ultra-violet rays, A., 624. Capillarity of marine-animal oils, B., 797.  
 Marcelin, A., surface solutions; two-dimensional liquids and unimolecular layers, A., 1113.  
 and Dervichan, D. G., measurement of superficial pressure of superficial solutions of soluble substances, A., 21.  
 Marcellus, F. S. See Gen. Electric Co.  
 Marchal, J. G. See Lasseur, P.  
 Marchenko, G. V. See under Martsehenko, G. V.  
 Marchés, J., sedimentation process, B., 38. Settling process [in sugar solutions], B., 600.  
 Marchionini, A., and Ottenstein, B., diastase content of cerebrospinal fluid, A., 411.  
 Marchlewski, L., Pizlo, J., and Urbańczyk, W., [absorption] spectrum of methyl glyoxal, A., 1277.  
 and Surzycki, T., absorption of ultra-violet light by organic substances. XXIX., A., 661.  
 and Urbańczyk, W., reducing sugars. III., A., 937. Chlorophyll. XX. Transformation of chlorophyll in the animal organism, A., 974.  
 See also Gabrielski, W.  
 Mareille, R., determination of acidity of wines (official methods), B., 729. Determination of bromine index of oils, B., 975.  
 Mareille, R., analysis of fish-preserving oils, B., 975.  
 Marcini, M. J., and Mackenzie, D., treatment of carbonaceous articles, (P.), B., 181\*.  
 Marconi, J. See Auméras, M.  
 Marconi's Wireless Telegraph Co., Ltd., Zworykin, V. K., and Batchelor, J. C., cathode-ray tubes, (P.), B., 73.  
 Marden, J. W. See Westinghouse Lamp Co.  
 Marder, M. See Schaarschmidt, A.  
 Mardles, E. W. J., surface tension measurements with non-aqueous colloidal solutions, A., 458.  
 See also Helmore, W.  
 Mareček, V., synthesis of benzoic acid from chlorobenzene, carbon monoxide, and water, A., 1048.  
 Marechal, F. E., light concrete and similar materials, (P.), B., 966.  
 Maréchal, P., absorption of metallic and colloidal silver, A., 884.  
 Marejkowsky, B. K., and Guillaumin, C. O., collodion thimbles for ultra-filtration, A., 1027.  
 Marek, L. F., and Flege, R. K., catalytic vapour-phase hydration of  $\Delta^2$ -butene under high pressures, A., 142.  
 and Neuhaus, M., thermal decomposition of isobutane into primary products, A., 693.  
 Marenzi, A. D., and Gerschmann, R., determination of potassium in blood-plasma, A., 81.  
 See also Gerschmann, R.  
 Marescotti, A. See Rossi, G.  
 Margaria, R., gas-analysis apparatus, A., 1027.  
 See also Brinkman, R.  
 Margasiński, Z., tobacco smoke, B., 91.  
 Margenau, H., pressure broadening of spectral lines. II., A., 201. Van der Waals forces of helium and stability of a small energy helium molecule, A., 206. Optical dispersion of helium, A., 210.  
 and Watson, W. W., pressure effects of foreign gases on the sodium D lines, A., 879.  
 Margerum, C. E. See Westinghouse Electric & Manufg. Co.  
 Margival, F., standardisation of paints and paint materials, B., 156.  
 Margolena, L. A., fast-green [as a stain], A., 524. Phloxine with orange-G as a differential counterstain, A., 1185.  
 and Hansen, P. A., nature of the reaction of *B. coli* on Endo's medium, A., 1206.  
 See also Conn, H. J.  
 Margolin, G. See Markman, A.  
 Margolin, J. M. See Messkin, W. S.  
 Margolina, R. L. See Gurvitsch, V. L.  
 Margolina, S. S. See Shakhov, G. A.  
 Margolis, L. Y. See Mal'yatski, A. B.  
 Marie, C., and Thon, N., electrodeposition of metals on cathodes covered by insulating layers, B., 271.  
 Marine, D. See Baumann, E. J.  
 Marinisco, N., preparation of colloids by ultrasonic dispersion, A., 224.  
 and Trillat, J. J., action of ultrasonic waves on photographic plates, A., 473.  
 Maring, K. A., influence of pressure on formation of the latent photographic image, particularly its effect on reversal in the region of solarisation, A., 1255.  
 Marino, S., blood-lipins in acute infectious diseases, A., 304. Behaviour of the adrenal lipins in anæmia caused by hæmorrhage and by hemolytic poisons, A., 739. Behaviour of the lipins of the suprarenal capsules of splenectomised animals, A., 853. Alimentary lipæmia after administration of fats to splenectomised animals, A., 857. Liver-lipins after splenectomy, A., 1073.  
 and Romeo, F., influence of acid secretion of the stomach on variations in blood-sugar level after administration of caseinogen and hydrochloric acid, A., 1319.  
 Marion, S. J. See Bogert, M. T.  
 Mariotti, A., cracking of oil from Ragusa, B., 338.  
 Marjanović, V. See Njegovan, V.  
 Mark, H., fine structure and mechanical properties of fibres, B., 298. Recent work on structure of compounds of high mol. wt. and its significance in the paper industry, B., 382. Significance of the new cellulose model (molecular structure) for technical and dyeing properties of the fibre, B., 425.  
 See also Zechmeister, L.  
 Marker, R. E. See Levene, P. A.  
 Markert, H. See Kraus, P.  
 Markham, P. J. See Le Fèvre, R. J. W.  
 Markley, K. S., Hendricks, S. B., and Sando, C. E., wax-like coating of apples, A., 104.  
 and Sando, C. E., progressive changes in cuticle of apples during growth and storage, A., 758. M.p. of naturally occurring *n*-nonacosane, A., 930. Possible changes in wax-like coating of apples caused by certain spray and other treatments, B., 982.  
 See also Gibson, Ralph Edward.  
 Markley, M. C., and Bailey, C. H., automatic method for measuring gas production and expansion in doughs, B., 168.  
 Markman, A., and Margolin, G., margarine, B., 73.  
 and Vuishnepolskaya, F., Soviet bleaching earths, their activation and application, B., 735.  
 Marko, D. M., and Lapkin, I. I., Ural (perm) crude oil, B., 995.  
 Markov, V. K., influence of varying relative concentrations of reagents on activity of aluminium hydroxide, A., 1241. Adsorptive power of silica gels precipitated together with salts of metals, A., 1242.  
 See also Charmandarian, M. O.  
 Markowitsch, I. See Burawoy, A.  
 Markowitz, J. See Yater, W. M.  
 Marks, E. M. See Malisoff, W. M.  
 Marks, G. W., variable-orifice flow meter, A., 250.  
 Marks, H. P. See Hemmingsen, A. M.  
 Marks, S. See Morrell, R. S.  
 Markwell, W. A. N., sodium lamp, A., 1134.  
 Marie, D. J. van, and Buffalo Foundry & Machine Co., apparatus for drying sticky materials, (P.), B., 2.  
 Marley, S. P., and Gruse, W. A., laboratory experiments on gum-bearing gasolines, B., 7.  
 Marley, W. G., method of measuring specific heats of poor conductors, A., 894.  
 Marmorston-Gottesman, J. See Perla, D.  
 Marmoy, F. B. See Lewis, A. H.

- Maroger, J., painting technique of J. van Eyck, B., 1068.  
and Mourier-Malouf, G., painting technique of J. van Eyck, B., 1068.
- Maroscheck, E. F., granites of Mauthausen, Upper Austria, A., 251.
- Marot, (Mlle.) R., "terpinolene"; attempts to obtain pure terpinoline, A., 717.  
See also Dupont, G.
- Marotta, D., and Calò, A., extraction and composition of organic phosphorus products from rice husk and oil-seed cakes, B., 249.
- and Sica, C., composition and classification of Italian mineral waters. II., A., 1028.
- and Vercillo, A., extraction of gluten; determination of dry gluten and of alcohol-soluble substances, B., 248.
- Marples, E., and Lippard, V. W., acid-base balance of new-born infants. II. Low alkaline reserve. III. Influence of cow's milk on acid-base balance of blood of new-born infants, A., 179, 845.
- Marquardt, J. C. See Dahlberg, A. C.
- Marques, A., Abecassis, E. F., and Polleri, M., preventing or dissolving incrustation in steam boilers, economisers, etc., (P.), B., 369.
- Marques, (Mme.) B. E., distribution of radium in fractional precipitation of radiferous barium chloride, A., 562.
- Marquis, M. See Binet, L.
- Marrian, G. F. See Adam, N. K., Danielli, J. F., and Smith, Eric R.
- Marriott, R. H., liming of fellmongered sheepskins, B., 319. Absorption of oil by vegetable-tanned leather, B., 598.  
See also Lloyd, (Miss) D. J.
- Marriott, J. W. See Sanford, G. B.
- Marschak, J. A., technique of tincture manufacture, B., 365.
- Marsden, A., distribution of ash in coal and coke, B., 416.
- Marsden, J. C. See Knaggs, J.
- Marsene Products Co. See Kratz, E. M.
- Marsh, E. J. C., and Mills, E., temporary rust preventers, B., 109.
- Marsh, G. L. See Joslyn, M. A.
- Marsh, H. S., Weesner, C. W., and Sharon Steel Hoop Co., soluble ferric sulphate, (P.), B., 703.
- Marsh, J. K. See Bradley, G.
- Marsh, M. C., transmission of heat through fabrics, B., 358.  
and Earp, K., electrical resistance of wool fibres, B., 298.
- Marsh, P. See Collin, G.
- Marshall, A. E., and Columbian Carbon Co., activation of carbon, (P.), B., 454.
- Marshall, A. L., photochemical formation of hydrogen peroxide, A., 34.  
and Norton, F. J., vapour pressure and heat of vaporisation of graphite, A., 229.  
See also Brit. Thomson-Houston Co.
- Marshall, C. E. See Hickling, H. G. A.
- Marshall, E. K., jun., secretion of urea in the frog, A., 627. Kidney secretion in reptiles, A., 1320.  
See also Burgess, W. W.
- Marshall, H. L. See Hill, W. L., and Jacob, K. D.
- Marshall, H. T., and Barbour, H. G., heat regulation and water exchange. XIV. Liver oedema in the mechanism of fever produced by tetrahydro- $\beta$ -naphthylamine and by anaphylaxis, A., 558.
- Marshall, L. H., and Technimet Co., formation of chromium- and silicon-alloy coatings, (P.), B., 196. Coated malleable iron castings, (P.), B., 924.
- Marshall, P. G., gonadotropic hormones ( $\rho$ -factors). IV. Preparations of extracts for clinical use, with observations on stability in solution and standardisation processes, A., 870.
- Marshall, R. K., occurrence of O III in stellar spectra, A., 205.  
See also Menzel, D. H.
- Marshall, T. J. See Taylor, J.
- Marston, H. R., and Peirce, A. W., effects following thyroidectomy in merino sheep, A., 304.  
See also Robertson, T. B.
- Martens, R., intervention of liver in fixation and synthesis of peptides, A., 631.
- Martianov, G. J. See Goriachev, A. P.
- Martin, Arthur R., Kelly, P. J., Repath, K. H., and Pan Amer. Petroleum & Transport Co., sweetening of hydrocarbon oils, (P.), B., 295.
- Martin, Austin R., rôle of the solvent in electrolytic dissociation, A., 569.
- Martin, G., Niederhauser, J., Pinte, J., and Tonssaint, R., measurement of fastness [of dyed materials] to light, B., 745, 1053.
- Martin, George, unvulcanised rubber powder, B., 79.  
and Baker, H. C., effect of reclaim on manipulation of rubber, B., 800.  
See also Rubber Growers' Assoc., Inc.
- Martin, G. F., jun. See Westinghouse & Manufg. Co.
- Martin, H., influence of phosphorus in the raw materials for cement manufacture, B., 269.
- Martin, Hans. See Kuhn, W.
- Martin, Hubert, copper fungicides. II. Modifications of Bordeaux mixture designed to overcome practical difficulties in its application, B., 565.  
and Salmon, E. S., fungicidal properties of spray fluids. X. Glyceride oils, B., 566.
- Martin, H. M., van der Waals equation, A., 895.
- Martin, J., rational use of blast-furnace gas in metallurgical works; combustion of the gas under variable pressure, B., 348.
- Martin, Jerome, Krchma, I. J., and Commercial Solvents Corp., catalysts for preparation of esters, (P.), B., 540.
- Martin, Jules, dyeing and printing process, (P.), B., 745.
- Martin, J. C. See Hoagland, D. R.
- Martin, K. See Goldschmidt, S.
- Martin, L., urea-splitting enzyme found in gastric juice, A., 750. Gastric juice. I. Proteins of human gastric juice. II. Urea-splitting enzyme and pepsin in relation to proteins, A., 1185.  
and Morgenstern, M., carbon dioxide changes in alveolar air and blood-plasma or serum after subcutaneous histamine injection in man, A., 745.
- Martin, L. C., preparation of test plates for the microscope, A., 689.
- Martin, L. F., MacQueen, D. E., and Dow Chem. Co., preparation of alkylbenzyl-aniline, (P.), B., 773.
- Martin, L. H., and Lang, K. C., thermal conductivity of water, B., 895.  
See also Kannulnik, W. G.
- Martin, O. V., and Texaco Salt Products Co., preparation of calcium chloride [from oil-well brines], (P.), B., 506.
- Martin, O. V., and Texaco Salt Products Co., preparation of anhydrous metallic chlorides, (P.), B., 625. Preparation of calcium chloride [from oil-well brines], (P.), B., 703.
- Martin, R. B., and Amer. Cyanamid Co., [promoter for] mineral concentration [by flotation], (P.), B., 592.
- Martin, R. C., alcohols as lacquer solvents, B., 514.
- Martin, R. I. See Brit. Thomson-Houston Co.
- Martin, S. M., jun. [with Gruse, W. A. and Lowy, A.], distribution of gum-forming constituents in cracked gasoline, B., 578.
- Martin, S. R. W. See Farmer, E. H.
- Martin, T. L., influence of chemical composition of organic matter on rate of decomposition [in soil], B., 803.
- Martin, W. H., effect of prolonged holding at pasteurisation temperature on properties of an ice-cream mix, B., 248.  
See also Caulfield, W. J.
- Martin, W. McKr., and Green, J. R., determination of carbon dioxide in continuous gas streams, A., 478.  
See also Burke, E.
- Martin, W. S., and Stillman, R. C., oil and fat analysis by the thiocyanogen method, B., 513.
- Martin Co., G. L. See Van Dusen, C. A.
- Martinez, H. See Winget, Ltd.
- Martinez, M. See Johnson & Co. (Paper), Ltd., A. H.
- Martini, E., effect of light on oxidation-reduction potential of milk, A., 626.
- Martini, H. See Stock, A.
- Martino, G., alimentary hyperglycæmia, A., 856.
- Martins, T., rabbit as test for pituitary hormone and pregnancy hormone, A., 194.
- Martius, C. See Arndt, F., Euler, H. von, and Wieland, H.
- Martone, T. A. See Du Pont de Nemours & Co., B. I.
- Martschenko, G. V. See Charmandarian, M. O.
- Martz, J. A., potash-soda-lime felspar eutectic study, B., 705.
- Maruhn, J., and Tübben, L., hydrocarbons [by hydrogenation], (P.), B., 52.
- Maruszevska, W. See Jezierski, T. W.
- Maruyama, S., synthesis of methoxymethyl alkyl ketones, A., 260. Narcotine and vitamin-C, A., 646, 873.
- Maruyama, T., and Suzuki, B., unsaturated acids and their derivatives. IX. Configuration of tetrabromostearic acid, m.p. 60°, A., 375.
- Marvel, C. S. See Blomquist, A. T., Chu, T. T., Coffman, D. D., Gibbs, C. F., Goebel, M. T., Halley, L. F., Harmon, J., Lehman, M. R., Mitchell, D. T., Munro, H. E., and Sekera, V. C.
- Marvin, G. E., nectar secretion of the tulip tree or yellow poplar, A., 652.
- Marvin, H. H., and Baragar, A. E., Zeeman effect in the arc spectrum of nickel, A., 759.
- Marvin, O. F., and Mills Alloys, Inc., tungsten carbide, (P.), B., 794.
- Marwan, C. See Hiltner, W.
- Marx, K., Brodersen, K., and Winthrop Chem. Co., agent for exterminating animal or vegetable pests, (P.), B., 983.
- Marx, P. F., slide-rule for gas calculations, B., 1.

- Marx, W., heterogeneous catalysis of decomposition of aliphatic ethers, A., 1252.
- Marz, H., and Eckhardi, G., action of hashish, A., 746.
- Marza, E. See Marza, V. D.
- Marza, V. D., Marza, E., and Chioza, L., iron in hen's ovary, A., 1319.
- Marzano, C. See Blicke, F. F.
- Marzin, A., 2:5-dibromo-*p*-toluic acid, A., 1048. 2:4-Dihydroxyisophthalic acid, A., 1049. Acridol [5-hydroxy-acridine], A., 1059.
- Marzke, O. T., precipitation of  $\alpha$ - from  $\beta$ -brass, B., 431.
- Masaki, Koichi, spectrochemical study of chemical constitution of a reaction product between centralite [diphenyldiethylcarbamido] and gaseous nitrogen peroxide; dinitrodiphenyldiethylcarbamido, A., 153.
- Masaki, Kosaku, and Hirabayashi, O., application of thermionic valve in potentiometric titration, A., 1132.
- Masaki, O., dependence of the intensity of mercury [spectral] lines on temperature and production of continuous bands, A., 440. Temperature dependence of the absorption of excited mercury vapour, A., 656.
- Mascarelli, L., formation of heterocyclic iodine, nitrogen, and oxygen rings, A., 1311.
- Masch, K., electronic ionisation at low and high pressures, A., 109.
- Mascherpa, P., affinity between lung-proteins and lung-tissue, A., 967. and Callegari, L., cobalt-proteins of serum and liver and their distribution in the organism; affinity between proteins and their parent organs, A., 423.
- Maschinenfabrik Benninger Akt.-Ges., machines for wet treatment of fabrics, (P.), B., 345.
- Maschmann, E., and Helmert, E., cathepsin and peptidases in carcinomatous and sarcomatous animals, A., 628. Catheptic proteinase, A., 636. Proteolysis in organ- and cancer-cells, A., 970. Cathepsin and papain, A., 1081. Inactivation of cathepsin and papain by iodoacetic acid and by halogen, A., 1204.
- and Laibach, F., growth-promoting substances, A., 197. Presence of growth-promoting substance in animal and plant material, A., 1213.
- Maschmeyer, H., elongated tilting-hearth furnace, (P.), B., 310. and Amer. Lurgi Corp., blowing cupriferrous metallic sulphide melts, especially low-grade copper mattes, direct to black copper, (P.), B., 195.
- Masciotra, R. L., and De Hoz, R. M., biochemical pregnancy test; hormonal hypercholesterolemia, A., 86.
- Maséré, M., and Paris, R., action of formaldehyde on emulsion and invertase, A., 425.
- Mashino, M., improvement of soya-bean oil extraction. IV. Extraction with azeotropic mixtures adding lower alcohols before or after extraction, B., 753. See also Iinuma, T.
- Mashkilleison, B., and Zimmerman, S. S., causes of the dark colour assumed by "novolac" phenol-aldehyde resins, B., 978. See also Porai-Koschitz, A.
- Mashovetz, V. P., polycowper (air-heating apparatus for blast furnaces), B., 21.
- Masina, M. P. See Tiltschëev, M. D.
- Masing, G., and Pocher, W., development of a technical casting process for beryllium-copper alloys, B., 1013. and Scherrer, E., segregation [in metals], B., 922. and Siemens & Halske A.-G., metal [iron] covered copper wires, (P.), B., 272.
- Masiyama, Y., magnetostriction of iron-cobalt alloys, A., 18. Magnetostriction of nickel-cobalt alloys, A., 895.
- Maskill, W. See Howarth, J. T.
- Maslenitzki, I., concentration of Ural bauxite, B., 913. Utilisation of pyrite cinders, B., 921.
- Maslov, G., utilisation of phosphate and potash fertilisers on degraded chernozem soils, B., 563.
- Maslova, A. J., yield decrease due to addition of potassium fertilisers, B., 981.
- Mason, C. D. See Bradley, C. E.
- Mason, C. T. See Hatcher, W. H.
- Mason, C. W. See Dresser, A. L., and Smith, G. B. L.
- Mason, F. A., structure of para-red and related dyes, A., 59. See also Brown, W. R.
- Mason, F. E. See Silver Springs Bleaching & Dyeing Co.
- Mason, H. C. See Howard, N. F.
- Mason, H. M., determination of the fineness of grinding of chocolate by microscopical and tasting methods, B., 889.
- Mason, M. C. See Anderson, W. C.
- Mason, M. F. See Huffman, C. F.
- Mason, R. B., thermal insulation with aluminium foil, B., 335.
- Mason, T. G. See Phillis, E.
- Mason, T. N., and Tidswell, F. V., gob-fires. I. Explosions in sealed-off areas in non-gassy [coal] seams. II. Revival of heatings by leakage of air, B., 239.
- Mason, W. C., and Hutcheson, W. W., evaporators for distilling or concentrating apparatus, (P.), B., 176, 336. Concentration of liquids by spray evaporation, (P.), B., 689.
- Mason, W. H., and Masonite Corp., paper pulp, (P.), B., 620.
- Masonite Corporation. See Mason, W. H.
- Masriera, M. See García Banús, A.
- Massara, G., chlorination product obtained by condensation of methyl ethyl ketone with benzaldehyde [in presence of hydrogen chloride], A., 716.
- Massart, J. See Paffrath, H.
- Massatsch, C., decaffeinating of coffee and dethenising of tea extracts, (P.), B., 938.
- Massengale, O. N. See McDonald, F. G.
- Massey, A. See Grindley, W. H.
- Massey, H. S. W., passage of neutrons through matter, A., 4. and Mohr, C. B. O., collision of slow electrons with atoms. II. General theory and inelastic collisions. III. Excitation and ionisation of helium by electrons of moderate velocity, A., 202, 761. Free paths and transport phenomena in gases, and the quantum theory of collisions. I. Rigid sphere model, A., 1101. and Smith, R. A., passage of positive ions through gases, A., 1223. See also Childs, E. C.
- Massillon, T. See Iljin, B. V.
- Masson, I. See Hetherington, J. A.
- Mast, S. O., and Prosser, C. L., effect of temperature, salts, and [H<sup>+</sup>] on rupture of the plasma-gel sheet, rate of locomotion, and gel/sol ratio in *Amaba proteus*, A., 96.
- Mastbaum, H., detection of caramel in sweet wines, B., 1077.
- Masten, R. A. See Campbell, J.
- Masters, C. L., and Elko Chem. Co., recovery of phenol from liquors containing it, (P.), B., 218.
- Masters, H. B., mill, (P.), B., 369.
- Masters, J. R., regenerators for gas-retort settings, etc., (P.), B., 740.
- Masterson, T. L., and Nat. Aniline & Chem. Co., indigo powder, (P.), B., 222.
- Masterton, W., automatic cut-off for calorimeters, B., 98.
- Masuch, V., ionisation by  $\gamma$ - and cosmic rays in oxygen and xenon, A., 4.
- Masuda, K. See Ishikawa, F.
- Masuda, M., inversion temperatures of the baryte group and anhydrite, A., 252.
- Masukowitz, H., short-time annealing of aluminium strips and sheets in continuous electric annealing furnaces, B., 23.
- Masumi, T. See Okuno, T.
- Masunaga, K. See Machida, S.
- Matano, C., X-ray studies on the diffusion of copper into nickel, A., 218. Relation between diffusion coefficients and concentrations of solid metals; nickel-copper system, A., 1006.
- Matavulj, P. G. See Pushin, N. A.
- Mather, S. B. L., arrangement of  $\alpha$  nuclei and the prediction of isotopes, A., 882.
- Mathers, D. S., and Robertson, G. J., optical superposition and the 4:6-benzylidenemethylglucosides, A., 938. Walden inversion in the glucose series; derivatives of altrose, A., 1037.
- Mathers, F. C. See Bateman, R. L., Blue, R. D., Harbaugh, M., and Overcash, D. M.
- Matheson, D. H., removal of taste and odour from municipal water supplies, B., 606.
- Matheson, G. L., and Cummings, L. W. T., vapour pressure of low-boiling paraffin hydrocarbons in absorber oil, A., 896.
- Matheson, H. W., Skirrow, F. W., and Canadian Electro Products Co., [resinous] condensation products, (P.), B., 238.
- Mathews, J. A. See Jackson, R. F.
- Mathias, E., fulminating matter: expansion on decomposition at atmospheric pressure and constant temperatures, A., 368.
- Crommelin, C. A., Bijleveld, W. J., and Grigg, P. P., density curve of liquid carbon monoxide and its saturated vapour, and the rectilinear diameter, A., 16.
- Mathieson Alkali Works, bleaching [of cellulosic materials], (P.), B., 15. See also Curtis, E. C., and Taylor, L. D.
- Mathieu, J. P., compounds of tartaric acid and chromium, A., 26. Alkali tartrates and chromium, A., 566. Example of influence of the nature of chemical linkings on absorption of light, A., 884. Compounds of tartaric acid and nickel, A., 920.
- Mathieu, M., structural variations in the cellulose nitrates, A., 216.
- Mathieu-Lévy, (Mme.) L. S., catalytic oxidation of carbon monoxide, A., 575.

- Mathis. See Volmar, Y.  
 Mathison, J. See Priest, C. F.  
 Mathur, K. G. See Bhatnagar, S. S.  
 Mathur, R. N. See Verma, M. R.  
 Mathur, S. B. L., fine structure of the arc lines of lead and tin, A., 548.  
 Matignon, C., extinction of burning liquids, B., 137.  
 and Calvet, J., ageing of Al-Be alloys after tempering, B., 832.  
 Moureu, H., and Dodé, M., nitrates of propylene glycol and the butylene glycols, A., 592. Causes of simultaneous production of  $\Delta^a$  and  $\Delta^b$  butene by catalytic dehydration of butyl alcohol by alumina, A., 693. Influence of temperature on isomerisation of butenes in the presence of aluminium [oxide], A., 804.  
 and Séon, M., action of water vapour on hexane and benzene, A., 254. Action of water vapour on methane, B., 291. Action of water vapour on heavy petroleum oils and cyclic hydrocarbons, B., 338.  
 Matisehek, L., soil examination in the sugar [beet] industry, B., 560.  
 Matla, W. P. M. See De Liefde, J. H.  
 Matless Cell Patent Holding Corporation. See MacLennan, F. W.  
 Matossi, F., selection principle in oscillation spectrum of calcite, A., 445.  
 Matrossovitch, D. See Remesov, I.  
 Matschinskaja, I. See Schorigin, P. P.  
 Matskevitch, V. B. See Maljarov, K. L.  
 Matsubashi, T. See Katô, Y.  
 Matsui, J., constitution of polypeptides and [action of] proteolytic enzymes. I. and II., A., 723.  
 Matsui, M., Bito, K., and Kadôno, M., dissociation pressure of calcium carbonate. II. Differential manometer method, A., 906. Causticisation of sodium carbonate by ferric oxide. XVI. Dissociation of sodium carbonate in presence of ferric oxide. III., A., 1014.  
 Bito, K., Murayama, S., and Kadôno, M., dissociation pressure of calcium carbonate. I. Differential thermocouple method, A., 905.  
 Noda, T., Kambara, S., and Oyamada, S., measurements on concentration and dispersity of suspensions by the photoelectric cell. I. and II., A., 225.  
 Noda, T., and Miyagi, S., continuous method of analysis of ammonium salt solution, B., 17.  
 See also Bito, K., and Kambara, S.  
 Matsukawa, T., viscosity of acid and basic open-hearth furnace slags in the molten state, B., 671.  
 Matsumiya, I. See Hayashi, I.  
 Matsumoto, M., cation and chlorine content of rabbit's brain, A., 735. Inorganic and phosphagen-phosphorus content of the brain, A., 735.  
 Matsumoto, Y., tyrosine fraction in the blood-serum of Japanese and its relation to the skin tint and skin diseases, A., 295.  
 Matsunaga, Y., nickel-chromium alloys, A., 1238.  
 Matsunami, H., and Morimasa, T., pitchless coal briquette, B., 1041.  
 Matsuo, H., blood-regenerative action of various chemical substances, A., 1315.  
 Matsuoka, T., vitamin-C. IV.—IX., A., 325, 873, 1090.  
 Matsuoka, Y. See Tsudji, M.  
 Matsushita, M., production of antityphoid substance by irradiation of the skin with ultra-violet rays and rôle of the spleen hormone therein, A., 868.  
 Matsuura, A. See Itano, A.  
 Matsuura, K., distribution of carbohydrate in tissues and organs during insulin- and synthalin-hypoglycaemia, hunger, and liver-storage, A., 935.  
 Matsuzaki, H., glycolytic co-enzymes, A., 980.  
 Matsuzaki, K., action of the testicular hormone on cockcombs and seminal vesicles, A., 1211.  
 Matt, M. C., and Abbotts Dairies, therapeutic milk product, (P.), B., 987.  
 Mattauach, J., new methods of mass-spectrometry, A., 12.  
 Matter, O., explosive capsules for blasting detonators, etc., (P.), B., 125.  
 Matters, R. F. See Hicks, C. S.  
 Matthew, J. A., measurement of fibre and yarn diameters by diffraction method, B., 343.  
 Matthews, E. F., methods of intimately uniting a body of metal having a low m.p. [brass] with a body of metal having a high m.p. [steel], (P.), B., 195.  
 Matthews, M. A. See King, J. G.  
 Matthis, A. R., testing tinning of rubber-insulated copper wire, B., 309. Testing tinning of rubber-insulated conductors, B., 979.  
 Matti, J. See Fourneau, E.  
 Mattick, A. T. R., and Kon, S. K., influence of agents on lability of the "reducing factor" (vitamin-C?) in milk, A., 1186.  
 See also Folley, S. J.  
 Mattick, E. C. V. See Golding, J., and Little, W. L.  
 Mattill, H. A. See Olcott, H. S.  
 Mattis, H., and Mandrysch, E., detection of iodine in urine, A., 525.  
 Mattox, W. J. See Wheeler, A. S.  
 Mattson, S., cataphoresis; improved cylindrical cell, A., 349. Laws of soil colloidal behaviour. XI. Electrodialysis in relation to soil processes, B., 932.  
 and Hester, J. B., laws of soil colloidal behaviour. X. XII. Amphoteric nature of soils in relation to aluminium toxicity, B., 162, 1023.  
 Matura, S., velocity of splitting off of chlorine from monochloroacetate, A., 678. Velocity of permeation of electrolytes through a membrane, A., 1010.  
 Matuyama, E., lifetime of the metastable  $^3P_2$  neon atom, A., 1. Band spectra which appear near visible triplet lines of mercury, A., 200. Dependence of excitation of spectral lines of helium and mercury on pressure under a high-frequency discharge, A., 331.  
 See also Okubo, J.  
 Matveev, C., X-ray spectroscopy of monoazite from Bortschowotschny, Transbaikalia, A., 215.  
 Mauchly, J. W. See Dieke, G. H.  
 Maur, C. F., water- and moisture-proof coating material, (P.), B., 719.  
 Mauersberger, E. A., cacao butter and the quartz [mercury-vapour] lamp, B., 28. Separation of stearin[c] and olein[c] from mixtures thereof, (P.), B., 513.  
 Mauger, J. G., and Maison Camus-Duchemin Soc. Anon., direct manufacture of ketones from impure volatile acids, (P.), B., 998.  
 Maugeri, S., determination of oxalic acid in urine, A., 850.  
 Maughan, F. B., naphthalene for control of onion thrips, B., 484.  
 Maume, L., and Bouat, A., zones of stability of different copper compounds in Burgundy mixture as function of  $pH$ , B., 805.  
 See also Lagatu, H.  
 Maupetit, J., ammonia and urea content of human saliva, A., 84.  
 Maurakh, A. A. See Bocharov, A. A.  
 Maurer, B., origin of non-rusting steels, B., 1060.  
 Döring, T., and Buttig, H., composition of the carbides in chromium steels, B., 1060.  
 and Korschman, H., mechanical properties of large [steel] forgings, B., 470.  
 See also Bischof, W.  
 Maurer, F. A., depositing chromium on electric appliances, B., 109.  
 Maurer, K., and Petsch, W., derivatives of glucosone, A., 810.  
 and Schiedt, B., reactions between sugars and amino-acids. III. Separation of racemates of optically active aminoacids by glucoside formation and synthesis of a tripeptideglucoside, A., 263. Preparation from glucose of an acid  $C_6H_7O_6$  equal to ascorbic acid in reducing power, A., 936.  
 Mauriac, P., effect of insulin on the hypercholesterolemia of the nephritic rabbit, A., 321.  
 Broustet, P., and Dupin, A., spontaneous variations in blood-sugar, A., 1316.  
 Maurmann, G. See Blanck, E.  
 Mauthe, J. L., gas cleaner, (P.), B., 770.  
 Mauthner, F., migration of acyl groups in polyhydric phenols, A., 395. Synthesis of 2:3:5-trihydroxyacetophenone, A., 395.  
 Maver, M. E. See Voegtlin, C.  
 Mavroff, H., influence of anterior pituitary extract on blood-gluthione, A., 1086.  
 Mavin, C. R. See Haworth, R. D.  
 Maw, W. G. See Lister & Co., Ltd., R. A.  
 Mawha, J. K., and Smoot Eng. Corp., open-hearth furnace control, (P.), B., 2.  
 Maxfield, F. H. See Huston, R. C.  
 Maxim, N., and Angelescu, J., synthesis of  $p$ -substituted  $\beta$ -furyl- $\beta$ -alkyl- and  $\beta$ -furyl- $\beta$ -aryl-propionophenones, A., 281.  
 Maximin, M. See Chabrol, E.  
 Maximine Société Anonyme. See Weerts, V., jun.  
 Maximov, A. A. See Benin, G. S., and Mintz, I. B.  
 Maximova, M. See Bruns, B.  
 Maximovitch, G. A., mineral springs of Chechnya (Caucasus), A., 691.  
 Maximovitch, I., iodine and bromine in oil-well waters of the Grozni district, B., 146.  
 Maxted, E. B., and Hassid, N. J., kinetics and heat of adsorption of oxygen on platinum, A., 911.  
 and Lewis, G. J., energetics of catalysis. I. Energetic homogeneity of a platinum surface, A., 680.  
 Maxwell, G. B., and Wheeler, R. V., explosions of mixtures of hydrogen and air: specific heats of steam at high temperatures, A., 909.  
 Maxwell, K. G., plastics: their use in electrical industry, B., 879.  
 Maxwell, L. R., electron diffraction by liquids, A., 882. Radiation originating from a beam of electrons in mercury vapour and mean life of the  $2^3S_1$  state, A., 1220.

- May, D. R. See Westinghouse Electric & Manufg. Co.
- May, F., glycogen and galactogen (animal sinistrin) content of *Helix pomatia*. II. Galactogen content of eggs of *H. pomatia*. III., A., 380.
- and Kordowich, F., microscopical detection of glycogen and galactogen and their separation, A., 54, 380.
- Mayeda, S., feeding experiments with decomposition products of proteins. III., A., 975.
- Mayeda, T., flotation with a miniature machine, B., 970.
- Mayehoff, K. L. See Belokopytoff, A. J.
- Mayer, E., German ochres, B., 1068.
- Mayer, Fr. See Nottbohm, F. E.
- Mayer, Fritz, porcelain stirrer, A., 801.
- Mayer, H., radiation of metal surfaces bombarded by positive alkali ions, A., 1096.
- Mayer, J. See Dziewoński, K.
- Mayer, J. E., Brunauer, S., and Mayer, (Miss) M. G., entropy of polyatomic molecules and the symmetry number, A., 218.
- and Mayer, (Miss) M. G., polarisabilities of ions from spectra, A., 550.
- Mayer, M., and Krebs Pigment & Color Corp., oxides of fourth-group metals, (P.), B., 785.
- See also Blumenfeld, J.
- Mayer, (Miss) M. G. See Mayer, J. E.
- Mayer, N., light motor fuels, B., 180.
- Design of plant for recovery of gasoline from natural gas, B., 994.
- Mayer, O., mathematical determination of  $\eta_{sp}$ , A., 481.
- Determination of nitrates in water [by the indigo method], B., 1088.
- Mayer-Reich, (Mme.) N., action of oxygen on reducing sugars, A., 699.
- See also Wurmser, R.
- Mayer-Witten, automatic regulation of mixture relations of gases in chemical practice, B., 207.
- Mayers, M. A., acid-soluble oxidising material from charcoal, A., 794.
- Mayfield, H. L. See Richardson, J. E.
- Maynard, L. A., and McCay, C. M., influence of different levels of fat intake on milk secretion, A., 177.
- Mayo, F. R. See Kharasch, M. S.
- Mayr, A., and Graf & Co. A.-G., R., sterilised catgut, (P.), B., 44.
- Mayr, C., determination and separation of zinc from the metals of the ammonium sulphide group as sulphide by application of the chloroacetic acid-sodium acetate buffer, A., 478.
- Mayr, F. See Täufel, K.
- Mayr, O. See Grassmann, W.
- Mayr, S. See Zehenter, J.
- Mayrhofer, A. [with Sommer, E.], determination of refractive index of essential oils, B., 525.
- Mayuranathan, P. S., and Guha, P. C., bridge formation. II. Formation and stability of a bridged cyclohexenone, 1-dimethylethane-1:2:2 III 1:4:4-cyclobutan-2-one, A., 503.
- Maywood Chemical Works. See Weber, F. W.
- Maze, A. E., and Manson Chem. Co., paper size, (P.), B., 503.
- Mazé, P., Mazé, P. J., jun., and Anxionnaz, R., effect of regulation of lactic acid fermentation on quality of cheese, B., 603.
- Absorptive function of maize roots, B., 1027.
- Mazé, P. J., jun. See Mazé, P.
- Mazoński, T. See Sucharda, E.
- Mazumdar, B. See Mukherjee, J.
- Mazur, A. See Harrow, B.
- Mazur, J., dielectric constants of liquid and solid ethyl ether and nitrobenzene, A., 9.
- Dependence on temperature of density of ethyl ether, A., 218.
- See also Wolfke, M.
- Mazza, F. P., and Stolfi, G., dehydrogenase of the higher aliphatic acids in the liver, A., 747.
- Colouring matter of *Halla parthenopaea*, Costa, A., 1183.
- Mazzaron, A., action of injected nutrient substances on plants, A., 875.
- Mazzocco, P., fasting and specific dynamic action [of meat proteins] in dogs with lesion of the tuber cinereum or in hypophysectomised dogs, A., 1075.
- See also Houssay, B. A.
- Mead, A. See Johnson, C. H.
- Mead, B., and United Shoe Machinery Corp., producing an adherent film of rubber on grain surface of vegetable-tanned leather, (P.), B., 33.
- See also McCabe, W. L.
- Mead, R. G., the Kramer borax deposit in California and development of other borate ores, A., 1268.
- Mead, T. H., Hughes, O. L., and Hartley, (Sir) H. B., conductivity of tetramethylammonium salts in methyl and ethyl alcohol, A., 1121.
- Mead Corporation, and Bair, W. E., jun., paper, (P.), B., 861.
- See also O'Connor, J. J.
- Mead Johnson & Co. See Bills, C. E.
- Mead Paperboard Corporation. See Hamm, C. S., and Zimmermann, W. J.
- Mead Research Engineering Co. See Traquair, J.
- Meade, G. P., Traxler, R. N., and Cuban-Amer. Sugar Co., extraction of sugar from cane molasses, etc., (P.), B., 887.
- Meadowcroft, J. W., and Budd Manufg. Co., E. G., [flux for] autogenous welding [of aluminium alloys], (P.), B., 71.
- Meadows, J. O., treatment of water for industrial purposes, B., 1088.
- Means, J. H. See Salter, W. T.
- Mease, R. T., analysis of weighted silk, B., 104.
- Adsorption of alcohol by fibrous materials, B., 1050.
- Mecheels, O., high lustre in mercerisation [of cotton], B., 462.
- and Stuhmer, G., effect of mercerisation on the "counts" of cotton yarn, B., 863.
- Meiß, J., purification of trinitrotoluene by sodium sulphite; action on  $\alpha$ -trinitrotoluene, B., 989.
- Mecke, R., rotation-vibration spectrum of water vapour. I., A., 445.
- Free radicals and spectroscopy, A., 1233.
- and Baumann, W., rotation-vibration spectrum of water vapour, A., 6.
- See also Baumann, W., and Freudenberg, K.
- Médaille, A. See Canals, E.
- Médard, L., Raman effect of sulphuric acid, A., 1102.
- Liquidus in the system diphenylamine-centralite [ $\beta$ -diphenyldiethylcarbamide]. I. and III., A., 1119.
- and Volkringer, H., Raman effect in nitric acid, A., 1228.
- Medes, G., solubility of calcium oxalate and uric acid in solutions of urea, A., 1320.
- Medinger, P., [detection of] small traces of blood, A., 845.
- Medvedev, N. B., glutathione in organs in presence of experimental tumours, A., 85.
- Medvedev, S. S. See Rybin, S. I.
- Mee, A. J., determination and detection of the halogens, A., 797.
- Meenan, M. C. See Katzenelbogen, S.
- Meek, C. A. See Taylor, W. H.
- Meer, N., and Póányi, M., comparison of sodium vapour reaction with other organic chemical reactions, A., 31.
- See also Hartel, H. von.
- Meerscheidt-Hüllessem, I. von, stability test for smokeless powder, based on a determination of the volumes at constant pressure and temperature of the gases evolved on decomposition, B., 252.
- Meersseman, F., and Dorche, J., experimental hepatic insufficiency; coefficient of Maillard and blood-nitrogen in the normal guinea-pig, A., 972.
- Dorche, J., and Morelon, F., experimental hepatic insufficiency; coefficient of Maillard and blood-nitrogen in the guinea-pig during acute and subacute phosphorus poisoning, A., 972.
- Meerwein, H., changes in properties of chemical compounds due to complex formation. VIII. Compounds of boron fluoride and synthetic application of boron fluoride, A., 360.
- and Sönke, H., ring-chain tautomerism of partly acylated polyhydric alcohols. II., A., 1273.
- Mees, C. E. K., photographic plates for use in spectroscopy and astronomy. III., B., 813.
- See also Brooker, L. G. S.
- Meetham, A. R. See Götz, F. W. P.
- Meetz, A., influence of the marsh horsetail (*Equisetum palustre*) on composition of milk and butterfat, A., 83.
- Meffert, H. See Pink, L.
- Megalokonomos, J. See Galatis, L.
- Megaw, (Miss) H. D., thermal expansion of crystals with layer lattices, A., 1237.
- Meggers, W. F., long-wave arc spectra of alkalis and alkaline earths, A., 759.
- Infra-red arc spectra of manganese and rhenium, A., 884.
- and Humphreys, C. J., infra-red spectra of neon, argon, and krypton, A., 655.
- King, A. S., and Bacher, R. F., hyperfine structure and nuclear moment of rhenium, A., 440.
- See also De Bruin, T. L., Humphreys, C. J., and Russell, H. N.
- Megson, N. J. L. See Morgan, G. T.
- Mehl, R. F. See Smith, D. W.
- Mehl, W. See Pohland, E.
- Mehlich, A., Truog, E., and Fred, E. B., *Aspergillus niger* method of measuring available potassium in soils, B., 483.
- Mehlitz, A., action of pectase. II., A., 188.
- Grape pectin, A., 1342.
- Pectin from dried grape marc, B., 166.
- Enzymic treatment of sweet musts with the "Bayer" filtration enzyme, B., 328.
- Mehmel, M., crystal structure of boracite, A., 1029.
- Mehring, A. L. See Cumings, G. A.
- Meibom, R. von, and Rupp, E., diffraction of slow electrons at single crystals of tungsten, A., 994.

- Meier, A., mixed fertiliser consisting of ammonium bicarbonate and ammonium sulphate, (P.), B., 567.
- Meier, H., titanium white, B., 676.  
See also Klumpp, E.
- Meier, M., rust-preventive lead paints, B., 315.
- Meier, O., influence of method of "making" hay and of artificial drying on yield and nutrient value of fodder plants and possibilities of the use of artificially-dried green fodder, B., 763.  
See also Hroncamp, F.
- Meier, P. J. See Ruzicka, L.
- Meier, R., and Thoenes, E., metabolism of the fatty liver. I. Respiration and respiratory quotient, A., 415.
- Meierling, T., growth of alloyed cast iron, B., 918.
- Meigh, G. H., uses of aluminium bronze and its resistance to wear, B., 392.
- Meigs, J. V., and Plastix Corp., manufacture of carbohydrate[-phenolic] resinous material, (P.), B., 596. Manufacture of resinous products, (P.), B., 596. Carbohydrate-phenol resin, (P.), B., 640.
- Meigs, Bassett & Slaughter, Inc., extrusion of cellulosic plastic compositions, (P.), B., 116.
- Meihuizen, S. H., colloidal combination of cellulose with ether and alcohol, A., 812.
- Meijer, R., and Bataafsche Petroleum Maats., sweated paraffin from non-sweated paraffin, etc., (P.), B., 952.
- Meikle, J., toughened plate glass, B., 915.
- Meiklejohn, A. P., avian polycyrcutis; action of vitamin-B<sub>1</sub> concentrates *in vitro*, A., 1090.  
Passmore, R., and Peters, R. A., pyruvic acid and vitamin-B<sub>1</sub> deficiency, A., 195.
- Meiklejohn, J., effect of *Colpidium* on ammonia production by soil bacteria, A., 191. Photo-electric effect of electric spark radiation, A., 202.
- Meiner, H. See Hofmeier, H., and Skita, A.
- Meinert, R. N., reactions of free ethyl radicals from thermal decomposition of lead tetraethyl, A., 494.
- Meinhard, P. See Bruckner, S.
- Meints, R. E., Hopkins, B. S., and Audrieth, L. F., rare earths. XXXVIII. Electrolytic preparation of rare-earth amalgams. II. Decomposition of lanthanum amalgam to obtain the metal, A., 576.
- Meinzer, G. H., and Blake-Smith, L., treatment of emulsions mechanically, (P.), B., 769.
- Meirowsky, A. See Höber, R.
- Meisel, M. N., action of cyanides on development of yeasts, A., 865. Combined action of coal tar and ultra-violet light on development of yeast, A., 1082.
- Meisenheimer, J., attempted fission of quinoline oxide; stereochemistry of tervalent nitrogen, A., 835.  
and Denner, H., attempted resolution of substituted hydroxylamines into optically active isomerides, A., 150.  
and Dörner, O., absorption spectra of oximes, A., 610.  
Schmidt, Willi, and Schäfer, G., velocity of rearrangement of phenylvinyl-carbinol esters, A., 391.
- Meissner, K. L. See Dürer Metallwerke A.-G.
- Meissner, K. W., Bartelt, O., and Eckstein, L., sulphur arc spectrum, A., 1221.
- Meissner, W., attainment of lowest temperature by compression of liquid helium, A., 561.
- Franz, H., and Westerhoff, H., measurements with liquid helium. XXII. Resistance of metals, alloys, and compounds, A., 894.  
and Scheffers, H., magnetic moments of potassium and lithium with regard to their magnetic nuclear moments. I. and II., A., 213, 449.  
and Steiner, K., apparatus for separation of neon-helium mixtures and determination of helium content of neon, A., 140. Vapour pressure of hydrogen rich in the heavier isotope, A., 110. Measurements with liquid helium. XX. Attempt to show the presence of neutrons in the atmosphere, A., 205.
- Meister, R. See Rieche, A.
- Meitner, (Frl.) L., and Kösers, H., scattering of short-wave  $\gamma$ -rays, A., 883.  
and Philipp, Kurt, interaction between neutrons and atomic nuclei, A., 111.  $\gamma$ -Radiation from Th-C and Th-C' and fine structure of the  $\alpha$ -rays, A., 334. Orbits of electrons released by neutron excitation, A., 550. Excitation of positive electrons by  $\gamma$ -rays from thorium-C'', A., 762.  
and Wang, K. C., inner photo-effect with  $\gamma$ -rays, A., 995.  
See also Hahn, O.
- Meitner, W., recovery of tin compounds in loading of silk, (P.), B., 626.
- Mejuto, M. N. See Calvet, F.
- Mekler, L. A., and Universal Oil Products Co., radiant and convection heat furnace [for oils, etc.], (P.), B., 687.
- Mekler, V. A. See Morrell, J. C.
- Meksyn, D., uncertainty relations and volume of photons, A., 335. Neutrons, A., 335.
- Meldrum, A. N., Priestley as a practical chemist, A., 690.  
and Advani, A. H., condensation of methyl- and ethyl-o-toluidines with chloral hydrate, A., 816.  
and Kapadia, B. M., condensation of chloral with 2-hydroxy-*p*-toluic acid and its methyl ether, A., 158.
- Meldrum, N. U., and Roughton, F. J. W., carbonic anhydrase and state of carbon dioxide in blood, A., 844.
- Melhus, F. See Berner, E.
- Melin, C. G. See Peterson, A. R.
- Mélka, J., uric acid excretion on diet low in purines, A., 1075.
- Mellanby, J., thrombase; preparation and properties, A., 750.
- Mellanby, K., simple hygrometer, A., 927. Hygrometer for use in small spaces, A., 1266.
- Mellanoff, I. S., and Kemikal, Inc., shellac substitutes, (P.), B., 316. Moulding, coating, filling, impregnating, and binding, (P.), B., 317.
- Meller, A., and Hüttig, G. F., active oxides. LXV. Elucidation of thermal decomposition of zinc carbonate and zinc oxalate by sorption measurements with dye solutions and methyl alcohol vapour, A., 774.  
See also Hüttig, G. F.
- Mellner, H. See Tausz, J.
- Mellon, M. G., and Heck, J. E., water content of fire-protective media [for safes, etc.], B., 229.
- Mellon Institute of Industrial Research.  
See Beal, G. D.
- Mellor, A. See Brit. Celanese.
- Mellor, D. P. See Dwyer, F. P.
- Mellor, J. W., discoloration of refractories by iron, B., 1056.
- Melmore, W. M., and Fluid Pressure Pumps, Ltd., emulsifying apparatus, etc., (P.), B., 992.
- Meloche, V. W., Clifcorn, L. E., and Griem, W. E., determination of calcium in mineral [feed] mixtures, B., 683.  
See also Titus, L.
- Melville, F. L. See Berry, A. G. V., and Trinidad Leaseholds, Ltd.
- Melville, H. W., photochemistry of phosphine, A., 35, 473. Inhibition of photochemical decomposition of ammonia by atomic hydrogen, A., 132.  
and Roxburgh, H. L., upper limit in explosive chain reactions, A., 678. Thermal decomposition of phosphine by tungsten and molybdenum, A., 790.  
and Walls, H. J., intensity filter for the mercury line at 252.7  $m\mu$ , A., 1264.  
See also Mackenzie, J. E.
- Melville, J., dehydrogenation of the sesquiterpenes of *Wintera colorata*, A., 831. Azulene, A., 1055.
- Melvin, E. H., and Wulf, O. R., band spectrum due to the molecule N<sub>2</sub>O<sub>3</sub>, A., 444.  
See also Wulf, O. R.
- Menadue, F. B., diphasic rubber; diphasic-forming tendency of rubber as shown by the action of pigments, B., 722.
- Menalda, F. A. See De Jong, H. G. B.
- Mencinski, J. See Ostrowska, M.
- Menck-Thygesen, P. See Ege, R.
- Mendelev, P., extraction of specific substances from mouse sarcoma *in vitro*, A., 415.
- Mendelsohn, J., solvent extraction as a method of detecting oxidation of coal, B., 610.
- Mendelsohn, K., and Closs, J. O., calorimetric investigations at liquid helium temperatures, A., 117.
- Mendenhall, D. R. See Elvehjem, C. A.
- Mendivezlua, G. See Deuloufo, V.
- Mendl, F. See Dehlinger, U.
- Mendoza, M. See Imperial Chem. Industries.
- Mengdehl, H., phosphorus metabolism in higher plants. I. Determination of pyro- and meta-phosphate, phosphite, and hypophosphite in plant material, A., 648.  
See also Keyssner, E., and Weissflog, J.
- Mengele, H., and Byk-Guldenwerke Chem. Fabr. A.-G., toning of silver pictures, (P.), B., 1038.
- Ménier, G., apparatus for purifying air, B., 574. Methods examined at Noisiel since 1875 for cooling and purifying air [for factories], B., 734.
- Menken, J. G., determination of vitamin-A content of human blood-serum, A., 323.
- Menkin, V., accumulation of iron in tuberculous areas. III., A., 1073.
- Menne, F. R. See Stewart, J. D.
- Mennie, F. L., composition for treating coal or other fuel, (P.), B., 820.
- Mennie, J. H. See Hampton, W. F.
- Menon, A. K., and Menon, O. S., simple methods for refining [fatty] oils, B., 435.
- Menon, O. S. See Menon, A. K.
- Menschick, W., and Page, I. H., degradation of cholesterol by the animal organism. II. Balance experiments with carnivora on a diet rich in cholesterol, A., 857.



- Menshikov, G., alkaloids of *Heliotropium lasiocarpum*. II. Degradation of heliotridine to heliotridane, A., 727.  
See also Magidson, O. Y.
- Mentzel, A., manufacture of alkali carbonate or mixtures of alkali hydroxide with alkali carbonate and ammonia, (P.), B., 266. Manufacture of alkali carbonate or alkali hydroxide and ammonia or ammonium salts, (P.), B., 346. Manufacture of alkali carbonate or alkali hydroxide, (P.), B., 588. [Pressure] multi-cell electrolyzers, (P.), B., 594.
- Menzel, A. E. O. See Heidelberger, M.
- Menzel, D. H., and Marshall, R. K., neon absorption lines in stellar spectra, A., 1220.  
and Payne, (Miss) C. H., interpretation of nova spectra, A., 992.  
See also Birge, R. T., and Boyce, J. C.
- Menzel, W., and Mohry, F., vapour pressures of  $\text{CF}_4$  and  $\text{NF}_3$ , and the triple point of  $\text{CF}_4$ , A., 344.  
See also Ruff, O.
- Menzies, A. W. C., and Lacoss, D. A., influence of intensive desiccation on physical properties of benzene, A., 668.  
See also Miles, F. T.
- Menzies, R. C., and Cope, (Miss) I. S., action of magnesium ethyl bromide on thallos chloride and thallos ethoxide, A., 152.  
and Overton, H. [with Wiltshire, E. R.], covalency, co-ordination, and chelation, A., 1231.  
and Wiltshire, E. R., applications of thallium compounds in organic chemistry. IX. Changes observed on replacing dialkylthallium by trimethylplatinum in chelate rings, A., 267.  
See also Wiltshire, E. R.
- Mercer, S. P. See Linehan, P. A.
- Merchant, P. W., and Texas Co., treatment of lead sludge [from treatment of hydrocarbon oils], (P.), B., 853.
- Mercier, F., and Balansard, J., cardiotoxic principles of lombir, *Cryptostegia madagascariensis*, A., 311.  
See also Mercier, L. J.
- Mercier, L. J., and Mercier, F., preparation of marubini, A., 278.
- Mercier, P., viscous friction and application to the theory of lubrication, B., 207.
- Mercier, R., paramagnetism of the dissolved cobaltous ion, A., 212.
- Merok, E., dehydration of [ethyl] alcohol, B., 122. Hydrazine, (P.), B., 588.
- Merek & Co., Inc. See Chandler, W. L.
- Merkel, J. H. C. See Büchner, E. H.
- Merckx, R., and Bruylants, P.,  $\alpha$ -bromonitriles, A., 1281.  
Verhulst, J., and Bruylants, P., refractometric examination of normal saturated nitriles, A., 815.
- Mercyrol. See Aubouy, P.
- Meredith, G. T. See Blair, J. M.
- Merica, P. D., Vanick, J. S., and Internat. Nickel Co., [nickel-chromium cast-iron] alloy, (P.), B., 552.
- Merigold, J. L., gold-plating solutions for production work, B., 110.
- Merkel, G., production of solid fuel by briquetting and heat-treating, (P.), B., 579.
- Merkel & Kienlin G.m.b.H., treating [waterproofing] textiles, (P.), B., 16.
- Merkenschlager, F., bromine in plant pathology, A., 546.
- Merkle, M. See Stolié, R.
- Merklen, L. See Santenaise, D.
- Merklen, P., and Gounelle, H., constitution of carbamide, A., 151.
- Le Breton, E., and Adnot, A., determination of serum-albumin and -globulin without using precipitating electrolytes, A., 175.
- Warter, J., and Kabaker, J., effect of acetylcholine on gastric acidity and its relationship to degree of acidity, A., 412.
- Merkulov, M. I. See Suslov, D. K.
- Merkurjev, N. E. See Bocharov, A. A.
- Merley, S. R., and Doherty Research Co., separation of secondary alcohols, (P.), B., 218. Rectification [and bubbler-tray columns], (P.), B., 449. Formation of alkyl sulphates, (P.), B., 955. Ester purification, (P.), B., 955.
- Spring, O., and Doherty Research Co., acetic acid, (P.), B., 998.
- Merlini, E., blood-sugar in poisoning by colloidal lead, A., 1329.
- Merlo, L., rapid analysis of [medicinal] extracts, B., 845.
- Merlub-Sobel, M. See Booth, H. S., and Cooper, H. S.
- Merrell, C. G., Bye, M., and Merrell Co., W. S., product of castor oil, (P.), B., 477.
- Merrell Co., W. S. See Merrell, C. G.
- Merres, E., and Turnau, R., [poisonous metals in] school materials, B., 315.
- Merriam, H. F. See Gen. Chem. Co.
- Merrill, A. C. See Hill, Ruben L.
- Merrill, H. B., determination of enzyme activity of commercial bates [for hides], B., 642.  
See also Wilson, J. A.
- Merrill, M. H., and Fleisher, M. S., factors involved in the use of organic solvents as precipitating and drying agents of immune sera, A., 82.
- Merrimac Chemical Co., Inc. See Curtis, F. J.
- Merritt, C. G., effect of heat-treatment on corrosion-resistance of stainless iron, B., 1060.
- Merritt, E. H. See Meyers, S. E.
- Merritt, G. E., interference method of measuring thermal expansion, B., 255.
- Merritt, M. M. See United Shoe Machinery Corp.
- Merry, E. W., absorption of oxygen by [vegetable] tanning materials. III. and IV., B., 33, 159.
- Merry, J. S., colloidal method of boiler feed-water conditioning, B., 735.
- Merryfield, F. See Baity, H. G.
- Mershon, R. D., excited electrolytic condenser, (P.), B., 796. Electrolytic rectifier, (P.), B., 796.
- Merten, W. J. See Westinghouse Electric & Manufg. Co.
- Mertens, E., creaming of milk, I.—IV., B., 168.
- Mertens, W. K. See Veen, A. G. van.
- Mertes, A. T. See Grasselli Chem. Co.
- Merwin, H. E., optical crystallography of 3-phenyl-2,4-thiazolidione, A., 839.  
See also Greig, J. W., and Morey, G. W.
- Merz, A. See McKee, R. H.
- Merz, A. R., Fry, W. H., Hardesty, J. O., and Adams, J. R., hygroscopicity of fertiliser salts: reciprocal salt pairs, B., 322.  
Hardesty, J. O., and Hendricks, S. B., optical properties of the double salt  $(\text{NH}_4)_2\text{SO}_4 \cdot \text{CaSO}_4 \cdot 2\text{H}_2\text{O}$ , A., 1104.
- Merz, F., stable solutions of morphine for injection purposes, (P.), B., 333.
- Merz, J. L., occurrence of sodium chloride in wine, B., 328.
- Merz, K. W., cichorin and constitution of aesculin and scopolin, A., 72, 1302. Chemistry and pharmacology of *Digitalis* glucosides, A., 531.
- Merz, O., diameter of tube in the falling-sphere viscosimeter, A., 587. Solvent losses in pigmented cellulose ester lacquer preparation, B., 77. Fine-grinding of spirit and cellulose lacquers, B., 276. Solubility of balata resin, B., 355. Spraying qualities of rubber and chlorinated rubber, B., 480. Comparison of ["celite"] pigments for paste-paints, B., 638. Stability of chlorinated rubber, B., 641. Comparative examination of [rubbered-fabric] materials for collapsible boats, B., 838.
- Merz & Co. See under Merz, F.
- Mesa, M. L., frosting process [for fabrics, etc.], (P.), B., 783.
- Mescheritskaja, R. See Teplov, J.
- Meserve, W. E., photovoltaic properties of  $\text{Cu-Cu}_2\text{O}[\text{Pb}(\text{NO}_3)_2]$  solution [Cu-Cu<sub>2</sub>O photocells, A., 1248].
- Mesherikov, V. V. See Vlasenko, B. E.
- Messenger, H. A. See Webb, H. W.
- Messer, L. T. See Adams, A. S.
- Messer, W. E. See Naugatuck Chem. Co.
- Messerschmidt, W., determination of emanation content of the atmosphere and its application to investigations of the relation with meteorological factors, and influence of emanation content of the atmosphere on measurement of cosmic rays, A., 443. Atomic disintegration by ultra-radiation, A., 551.
- Messina, R., modifications in the changes of blood-sugar produced by pharmacodynamic substances as a proof of altered equilibrium of the vegetative nervous system in experimental nephritis, A., 86.
- Messiner-Klebermass, L. See Zuckerkandl, F.
- Messkin, W. S., and Margolin, J. M., influence of hydrogen on transformer steel, B., 430.
- Messman, H. C., metallic selenium as a catalyst in Kjeldahl digestions, B., 170.
- Messner, R. H., influence of chemical binding on absorption coefficients of light elements for ultra-soft X-rays, A., 1233.
- Meston, A. F., Wintermute, H. A., and Research Corp., cleaning of gases, (P.), B., 555.
- Métadier, J., theory of Brownian motion and the operational method, A., 777.
- Metal Finishing Research Corporation, phosphate coatings on metals [iron], (P.), B., 311. Cleaning and coating of metal [iron], steel, or zinc, (P.), B., 511.
- Metal & Thermit Corporation. See Lubowsky, S. J.
- Metallgesellschaft Akt.-Ges., spray-drying apparatus, (P.), B., 2. Insipissation or concentration of rubber latex, (P.), B., 32. Separation of solvents from oils or fats dissolved therein, (P.), B., 76. Rotary tube furnaces, (P.), B., 175. Distillation of substances that are liquid at distillation temperature, (P.), B., 176. Rolling compounds of metals with non-metals or alloys of these compounds with metals [e.g., phosphor-copper], (P.), B., 196. Recovery of hydrocarbons by means of solid adsorptive agents, e.g., active carbon, etc., (P.), B., 215. Starches

**Metallgesellschaft Akt.-Ges.—continued.**

- swelling in cold water, (P.), B., 247.  
 Improving the electrical conductivity of copper, (P.), B., 312. Extraction of water of crystallisation or hydration from salts, (P.), B., 346. Electrical separation of suspended particles from gaseous fluids, (P.), B., 397. Performance of chemical reactions under pressure, by means of highly-heated gases, (P.), B., 609. Rotary tube furnace for desulphurising [zinc] ores in a fine or dust-like condition, (P.), B., 713. Removal of acid constituents from gases and rendering said constituents utilisable, (P.), B., 945. Zinc oxide [from material containing zinc sulphate], (P.), B., 1008. Manufacture of sulphuric acid by the contact process, (P.), B., 1055.  
 and Gensecke, W., still for substances of high b.p., (P.), B., 96.  
 and Lehrecke, H., solid diammonium phosphate, and mixed salts containing same, from solutions of phosphoric acid, (P.), B., 60.  
 and Oetken, F. A., furnaces for burning refuse, (P.), B., 494.  
 Petersen, A., and Gensecke, W., concentration of rubber latex, (P.), B., 677.  
 See also Lightalloys, Ltd., and Pacz, A.  
**Metals Disintegrating Co., Inc.**, [aluminium] bronze powders, (P.), B., 635.  
 See also Hall, E. J.  
**Metals Protection Corporation.** See Humphries, C. H.  
 Metelsky, V. V., and Starovoitov, K. T., soil acidity and liming, B., 1024.  
 Metger, J. E., and Schmidt, E. H., fertilisation of early potatoes, B., 84.  
 Meth, M., and Firth Sterling Steel Co., [zirconia] refractory articles, (P.), B., 466.  
 Metler, V., and Vosburgh, W. C., system zinc oxalate, potassium oxalate, water. I. At 25°, A., 906.  
 Metschl, J. See Hamor, W. A.  
 Metz, G. A. See Coppens, P. A.  
 Metz, L. See Lenze, F.  
 Metzger, A., direct determination of water with Pritzker and Jungkunz' apparatus, using tetrachloroethane in comparison with oven-drying methods, B., 1025.  
 See also Weidmann, U.  
 Metzger, F. J., and Air Reduction Co., treatment of metals; [case-hardening of molybdenum steel], (P.), B., 111. Generation and application of ammonia and composition therefor, (P.), B., 463. Separation of acetylene [from gas mixtures], (P.), B., 996.  
 Metzger, F. W., controlling winter emergence of the Japanese beetle in rose greenhouses by application of chemicals to the soil, B., 484. Liquid bait in Japanese beetle traps, B., 653.  
 Metzger, H. See Wieland, H.  
 Metzger, N. See Baumann, E. J.  
 Metzger, R. T. See Potter, P. D.  
 Metzger, W. H., rates of reaction with acid soils of finely-divided soil-liming materials, B., 882.  
 Metzner, and Röhler, relation of edible portion and offal, and composition of fresh-water fish, B., 331.  
 Meulen, H. ter, distribution of molybdenum, A., 140.  
 Meulen, P. A. van der, and Heller, H. A., pyridine boron trifluoride, A., 74.  
 Meulengracht, E., blood-sugar curve in various forms of icterus, A., 303.  
 Meulenhoff, J. S., crystalline kombé strophanthin, A., 54.  
 Meunier, A., presence of maltose in fresh tubercles of *Lathyrus tuberosus*, L., A., 990.  
 Meunier, F., corrosion of weldings of soft steel, B., 308.  
 Meunier, F. J., separation of mixtures of solid materials, (P.), B., 816.  
 Meunier, L. See Colas Products, Ltd.  
 Meunier, R. L. See Whitmore, F. C.  
 Meunier, R., [degreasing and wetting] solvent product for the textile industry, (P.), B., 782.  
 Meuwssen, A., thionitrososulphonium chloride, (SN<sub>2</sub>)SCl (thiotriethiazyl chloride), A., 39.  
 Meyer, A., physico-chemical and physiological researches relating to organic colouring matters, A., 45.  
 and Tuot, M., dehydration of tertiary alcohols by anhydrous copper sulphate, A., 695.  
 Meyer, A. E., and Eggert, C., iron and copper in liver and liver extracts, A., 297.  
 Meyer, B. S., cold-resistance in evergreens with special reference to the possible rôle of bound water, B., 244.  
 Meyer, C. E., and Rose, W. C., arginine metabolism. II. Arginine content of diet and creatine-creatinine production during growth, A., 1325.  
 See also Du Vigneaud, V.  
 Meyer, E. See Bär, R.  
 Meyer, F. See under Chem. Fabr. L. Meyer.  
 Meyer, Fr. See Cherbuliez, E.  
 Meyer, Herbert, improvement of zinc-aluminium alloy, Al<sub>2</sub>Zn<sub>3</sub>, A., 219.  
 Meyer, Hermann. See Bergmann, E.  
 Meyer, H. H. See Körber, F.  
 Meyer, I. See Roth, W. A.  
 Meyer, J., and Rampoldt, O., constitution of nitro-aquo-cobaltic salts, A., 1131.  
 Meyer, J. B., satin white, B., 156.  
 Meyer, J. D., and Reid, E. E., isomorphism and alternation in m.p. of normal alcohols, acetates, bromides, acids, and ethyl esters from C<sub>10</sub> to C<sub>18</sub>, A., 560.  
 See also Macht, D. I.  
 Meyer, K. (Bonn). See Junkersdorf, P.  
 Meyer, Karl. See Fischer, Franz.  
 Meyer, Klaus. See Weber, H. H.  
 Meyer, Konrad. See Tornau, O.  
 Meyer, Kurt, effect of iodoacetic acid on bacterial lactic acid production, A., 189. Influence of monoiodoacetic acid on bacterial and enzymic hydrolysis of glucosides, A., 984.  
 Meyer, K. F., and Zobell, C. E., metabolism in the *Brucella* group. IV. Bacteriostatic action of dyes. V. Production of hydrogen sulphide. VI. Nitrate and nitrite reduction. VII. Glucose utilisation, A., 190.  
 See also Zobell, C. E.  
 Meyer, K. H., Susich, G. von, and Valkó, E., elasticity of caoutchouc, A., 125.  
 Meyer, L., manual action of "Nettolin," a new humus manure prepared from high-moor peat, B., 679.  
 See also under Chem. Fabr. L. Meyer.  
 Meyer, M. See Darzens, G.  
 Meyer, M. H. See Benedict, F. G.

- Meyer, O., behaviour of oxidised iron in a current of chlorine, B., 65.  
 and Castro, R. J., determination of oxygen in iron and steel by the vacuum melting method, B., 65.  
 Eilender, W., and Schmidt, Wolf, nitrogenisation of iron and iron alloys. III., B., 192.  
 Meyer, P., theoretical comparison of petroleum distillation systems, B., 1042.  
 Meyer, R. See Rippel, A.  
 Meyer, R. E., titrimetric determination of carbonyl compounds by means of hydroxylamine hydrochloride, A., 1314.  
 Meyer, R. F., and Meyer Mineral Separation Co., metallurgical [chloridising] process, (P.), B., 633.  
 See also Meyer Mineral Separation Co.  
 Meyer, R. J. See Baxter, G. P.  
 Meyer, W., determination of lactose in bread, B., 522.  
 See also Ruschmann, G.  
 Meyer, Walter, detection of methyl alcohol in spirit preparations. II., B., 91.  
 Meyer, Werner. See Juza, R.  
 Meyer, Wilfried, electrical conductivity of inorganic substances with electron conductivity, A., 1103.  
 Meyer, W. W. See Klinefelter, T. A.  
 Meyer-Hermann, K., influence of soil reaction on development of fungal parasites and their behaviour towards host plants, B., 517.  
 Meyer Mineral Separation Co., and Meyer, R. F., solubilisation of metal values in oxidised ores [of copper and nickel] containing iron, (P.), B., 972.  
 See also Meyer, R. F.  
 Meyercoord Co., decorating metal objects, (P.), B., 199.  
 Meyeren, W. von, electrical clean-up of gases, A., 992. Vacuum-technical aid for chemists, A., 1266.  
 Meyerheim, G. See Müller, K. O.  
 Meyerhof, O., change of volume in muscular contraction, A., 307. Intermediate products and last stages of carbohydrate breakdown in metabolism of muscle and in alcoholic fermentation, A., 1074.  
 Gemmill, C. L., and Benetato, G., isometric oxygen coefficient of normal muscle and muscle poisoned with iodoacetic acid, A., 527.  
 and Hartmann, H., relation between change in volume and the chemical processes of contraction in muscle, A., 1194.  
 and Kiessling, W., intermediate products of carbohydrate metabolism in muscle extract, A., 528. Production and transformation of  $\alpha$ -glycerophosphoric acid during enzymic hydrolysis of carbohydrates, A., 1080.  
 and McEachern, D., anaerobic formation and disappearance of pyruvic acid in muscle, A., 742.  
 and Möhle, W., variation of volume of muscle in relation to the chemistry of contraction. I. Methods. II. Change of volume with various forms of contraction. III. Changes of volume with chemical processes in muscle, A., 742, 856.  
 Meyers, C. H., coiled-filament resistance thermometers, A., 366.  
 and Van Dusen, M. S., vapour pressure of liquid and solid carbon dioxides, A., 560.

- Meyers, S. E., and Merritt, E. H., consistency-responsive device [for pulp], (P.), B., 700.
- Meyersberg, P., and Wolf, G., artificial leather-like composition [from rubber latex], (P.), B., 932.
- Meylan, L. See Piccard, A.
- Meyler, L., casts and protein in urine, A., 1320.
- Meyring, K. See Fricke, R.
- Meythaler, F., carbohydrate dosage in insulin therapy, A., 1322.
- and Naegeli, T., mechanism of regulation of blood-sugar with differentiated anastomoses of the vessels between liver and abdominal organs. I., A., 1335.
- Mézáros, G., rapid determination of common salt in flesh products, B., 40.
- Mezger, O., Jesser, H., and Volkmann, M., distinction between egg and plant lecithin by biological means, using the complement-fixation method, B., 330. Detection of plant lecithin in pastry, B., 602.
- Mezger, R., evaluation of benzol content of gas, and economic importance of benzol washing, B., 1041.
- Mezhebovskaia, E. See Gerr, V.
- Mezincesco, P., utilisation of amino-nitrogen in the animal organism, A., 308.
- See also Terroine, E. F.
- Mezzadrol, G., and Amati, A., action of alkaloids on development of *Aspergillus niger*, A., 317. Influence of various alkaloids on growth and reproduction of saccharomycetes, B., 984.
- Amati, A., and Sgarzi, L., effect of type of yeast on quality and bouquet of wine, B., 121.
- "Mia" Mühlentbau & Industrie Akt.-Ges., apparatus for drying, calcining, roasting, and sintering, (P.), B., 447.
- Miale, J. P. See Smith, G. B. L.
- Miasnikova, A. M. See Antipov-Karataiev, I. N.
- Miatelkin, P. V. See Nikitin, B. A.
- Mian, T. B. See Schiemann, G.
- Micafl Akt.-Ges., electric insulating material, (P.), B., 875.
- Michael, A., and Ross, J., course of addition of sodium enolates of malonic and methyl-malonic esters to phenyl styryl ketone and crotonic ester, A., 608. Carbon syntheses with malonic and related acids. I., A., 1142.
- Michael, E. See Fuller, G. P.
- Michael, S., relation of taste and chemical constitution, A., 184.
- See also Falck, R.
- Michaelian, M. B., volatile acids formed from citric acid by *Streptococcus citrovorus* and *S. paracitrovorus*, A., 317.
- Farmer, R. S., and Hammer, B. W., relationship of acetyl methylcarbinol and diacetyl to butter cultures, B., 282.
- and Hammer, B. W., source of volatile acidity produced in milk by citric acid-fermenting streptococci, A., 738.
- Michaelis, L., dried collodion membranes, A., 223. Specific permeability of the cell wall, A., 1344.
- and Hill, E. S., potentiometric studies on semiquinones, A., 611. The viologen indicators, A., 958.
- Hill, E. S., and Schubert, M. P., reversible reduction in two stages of pyocyanine and  $\alpha$ -hydroxyphenazine, A., 97.
- Michaelis, R. See Braun, J. von.
- Michaels, J. J. See Searle, O. M.
- Michail, D., and Vancea, P., increase in hypoglycaemic power of insulin by an extract of the lachrymatory gland, A., 322.
- Michailov, M. T., galvanic and potentiometric determination of corrosion, A., 33.
- Michailova, O., Pevsner, S., and Archipova, N., microchemical methods in determination of 1 mg. of rhenium after preliminary separation of molybdenum, A., 138.
- Michalin, G. I., rational utilisation of compressed air, B., 607.
- Michaltschischin, G. T., determination of sulphur in cast iron and steel, B., 550. See also Tananaev, N. A.
- Michaux, A., phosphorus content of blood, muscles, and urine during scurvy, A., 629. In what form is chlorine retained in the organism deprived of the anti-scorbutic vitamin? A., 1091.
- Micheel, F., constitution of vitamin-C. I., A., 325. Vitamin-C, A., 1035.
- and Jung, F., oxytetric acid, the simplest substance of the ascorbic acid type, A., 1143.
- and Kraft, K., constitution of vitamin-C. III.—V., A., 489, 698, 936.
- and Moll, T., vitamin-C. VI. Identity of ascorbic acid and vitamin-C, A., 1213.
- and Suckfüll, F., new class of sugar derivatives, A., 596. Galactoseptanoses. II., A., 1278.
- Micheeva, M. I. See Zilberman, G.
- Michel, A., thermal treatment of rustless nickel-chromium steels, B., 509. Influence of the method of blast introduction on the blast-furnace operation, B., 1057.
- and Benazet, P., tempering of high-speed tool steels, B., 389.
- See also Ferré, L.
- Michel, G., and Soc. "Le Magnesium Industriel," preparation of moulding sands for easily oxidisable metals such as magnesium, (P.), B., 70.
- Michelbacher, A. E., Hoskins, W. M., and Herms, W. B., nutrition of flesh fly larvae, *Lucilia sericata* (Meig.). I. Adequacy of sterile synthetic diets, A., 417.
- Michel-Durand, E., nitrogen, sulphur, phosphorus, and potassium of leaves of *Prunus laurocerasus* at the time of falling, A., 327.
- Michel-Levy, A., and Muraour, H., influence of diphenylamine, aniline, etc. on the birefringence of nitrocelluloses, B., 45.
- Michels, A., and Gerver, A. J. J., revision of isotherm measurements of Kohnstamm and Walstra, A., 560.
- and Michels, (Mrs.) C., influence of pressure on the dielectric constant of carbon dioxide up to 1000 atmospheres between 25° and 150° A., 447.
- Michels, C. See Potthoff, O.
- Michels, (Mrs.) C. See Michels, A.
- Michelsen, J. See Talbott, J. H.
- Michielini, L. See Crisci, P.
- Michigan Steel Corporation. See Steele, J. H.
- Michlin, D., and Rubel, W., action of iodoacetic acid on the proteases of tissue, on malignant tumour cells, and on cell-free extracts, A., 636.
- Michlina, S. E. See Zelinski, N. D.
- Michoff, M. See Böttger, W.
- Michoux, A., total calcium content of whole blood and its elimination through the kidneys during chronic and acute scurvy, A., 1323.
- Mickley Coal Co., Ltd. See Bates, S.
- Miculicich, E., dependence of Richardson's law and Traube's rule on optimum adsorption range of aliphatic homologues (aldehydes), A., 1241.
- Mid-Continent Petroleum Corporation. See Bennett, H. T.
- Mid-West Chemical Co. See Hessle, E. T.
- Middleton, A. See Williams, W. E.
- Middleton, C. O. See Gary, W. W.
- Middleton, E. B. See Rocker, G.
- Middleton, F. A., solutions and dispersions used in the rubber factory, B., 514.
- Midgley, A. R., overliming acid soils, B., 118.
- Midgley, T., jun., and Henne, A. L., separation and identification of sol rubber hydrocarbons, B., 200.
- Miehe, K., and Witt, W., practical experience with pre-defecation [of sugar juice], B., 361.
- Mields, M. See Funk, W.
- Mienes, K., and Frank, G. von, technology of cellulose derivatives, B., 959.
- Mierdel, G., migration velocity of suspended dust particles in electro-filters, A., 23.
- Miermeister, A. See Büttner, G.
- Miethe, M., and Courth, H., iodine content of the colostrum of cows, A., 84.
- and Finzenhagen, H., micro-methods in milk analysis. II. Total nitrogen, casein, and albumin, B., 168.
- and Levecke, H., micro-methods in milk analysis. I. Micro-determination of calcium and magnesium, B., 168.
- See also Lang, K.
- Migeotte, M., variations of the absorption and fluorescence spectra of diatomic tellurium vapour with temperature and pressure, A., 1219.
- See also Swings, P.
- Migita, M., molecular rearrangements of  $\alpha$ -glycols. IV. Influence of substituents on the reactivity of a pinacene; reduction of 4:4'-dimethoxy-benzophenone. V. Relative electronegativities of *p*-methoxy- and *p*-ethoxy-phenyl radicals. VI. Relative electronegativities of *p*-anisyl and naphthyl radicals. VII. Relative electronegativities of  $\beta$ -naphthyl and diphenyl radicals. VIII. Reduction of  $\alpha\beta$ -dinaphthyl ketone (an attempt to compare the electronegativities of  $\alpha$ - and  $\beta$ -naphthyl radicals). IX. Conclusion (the pinacolin rearrangement as a method of establishing relative electronegativities of organic radicals), A., 68, 271, 394.
- See also Aso, K.
- Migra, E. von, volumetric determination of calcium and magnesium in presence of each other, A., 42. Determination of nitrous acid, A., 243. Detecting traces of nitrous acid with indigo-sols, A., 243. Volumetric determination of bismuth as oxychloride, A., 1264.
- Mihalovici, A., sterilisation of sodium bicarbonate solutions [for injections], B., 445.
- Mihara, K. See Ishikara, Tominatsu.
- Miholic, S. S., analysis of the acid water of Slatina Radenci, A., 45.
- Mihova, (Miss) M. See Ivanov, D.

- Mihul, C. See Ionescu, T. V.  
Mihul, (Mme.) I. See Ionescu, T. V.  
Mikami, Masao. See Kosugi, T.  
Mikami, Miwakichi. See Murakami, T.  
Mikeroov, V. See Berlin, L. E.  
Mikhailov, B., determination of yield of oil from oil sands under laboratory conditions, B., 995.  
Mikhailov, M. N. See Obukhov, A. P.  
Miki, S., and Sera, S., oils of Manchurian *Phaseolus mungo*, L., var. *radiatus*, Bak, B., 675.  
Miki, Takeo. See Kameyama, N.  
Miki, Toshio, [vitamin-A in] rice embryo, A., 1087. Hexono bases in rice embryo, A., 1343.  
Miko, Gyula, modification of iodometric determination of caffeine by Wallrabe's method, A., 173. Caffeine content of tincture of kola nuts, B., 571. Stability of insulin solutions, B., 939.  
Miko, Julius von. See under Miko, Gyula.  
Mikross, M. von. See Brunner, K.  
Mikulina, N. V., Korelin, A. I., and Shakhno, A. P., determination of moisture in Russian coal. I., B., 450.  
Mikulla, H. J. See Garre, B.  
Mikumo, J., capillary activity and adsorption of soaps, B., 354.  
Milam, J. See Gilmore, J. U.  
Milas, N. A., and Cliff, I. S., organic peroxides. II. Use of camphoric acid peracid for the determination of unsaturation, A., 279.  
and McAlevy, A., organic peroxides. I. Peroxides in the camphoric acid series, A., 279.  
Milashevski, N., utilisation of seeds of *Agriophyllum arenarium*, B., 155.  
Milashevski, V., seed of wild *Cruciferae*, B., 876.  
Milatz, J. M. W., influence of space charge on measurements of excitation functions, A., 1222.  
Milbauer, J., decolorising charcoal with selective adsorbent qualities for wines, B., 808. Impregnated carbon of the carboraffin type, B., 849. Decolorisation of wine by means of impregnated carbon, B., 889.  
and Doškař, J., Kjeldahl reaction and carbon disulphide, A., 1019. Double nitrate of copper and ammonium, A., 1128. Preparation of calcium chromate in the wet way, B., 963.  
Milbradt, W., micro-determination of cholesterol and phosphatides in tissue and blood, A., 624.  
Mildebrath, D., effect on geotropic reaction of roots of *Zea mays* of pretreatment with fluorescein dyes and salts, A., 106.  
Milekhina, O. See Dubinin, M. M.  
Miles, C. S., methylene-blue reductase test [in milk], A., 969.  
Miles, F. D., molecular aggregation of cellulose nitrate, A., 261. [Automatic] pressure regulator for gas-filled X-ray tubes, A., 801.  
See also Jones, G. G.  
Miles, F. T., and Menzies, A. W. C., physical properties of divinyl ether, A., 560.  
Miles, H. J. See Rudolfs, W.  
Miles, H. W., dusting for control of apple sawfly, B., 360.  
Miles, L. E., and Persons, T. D., *Verticillium* wilt of cotton in Mississippi, B., 86.  
Miles, L. H., apparatus for refining petroleum, (P.), B., 457.  
Milford, M. See Egerton, A.  
Milgevskaja, V. L. See Burkser, E. S.  
Milheiro, E., origin of urinary ammonia; action of renal tissue in the presence of glycine, A., 300.  
Milhiet. See Lenglen, M.  
Milhorat, A. T. See Thomas, K.  
Milk Products Sub-Committee, analysis of sweetened condensed milk in which sucrose has altered during storage, B., 40.  
Millam, L. H. See Brewster, C. M.  
Miller, C. E., behaviour of soil under reforestation, B., 933.  
Miller, R. W., and Shell Development Co., acetylene, (P.), B., 951.  
Miller, A. A. See Uglov, V. A.  
Miller, A. G. See Davis, B.  
Miller, C., and Thermoatomic Carbon Co., carbon black, (P.), B., 339. Combustion chamber [for manufacture of carbon black], (P.), B., 693.  
Miller, (Miss) Christina C. See Guthrie, (Miss) W. C. A.  
Miller, Clarke C., and Standard Oil Co., preparation of lubricating oil, (P.), B., 499.  
Miller, Carey D., and Abel, M. G., adsorption of vitamin-B<sub>1</sub> by plant tissue. I., A., 756.  
Miller, Carl D., continuous viscosimeter, A., 481. Measurement of viscosity [of oils, etc.], (P.), B., 817.  
Miller, C. O. See Siehrs, A. E.  
Miller, C. P., metallic [iron-tungsten-cobalt] alloys, (P.), B., 311.  
Miller, C. P., jun., Hastings, A. B., and Castles, R., influence of inorganic salts on multiplication of *Gonococcus*, A., 429.  
Miller, D. See Ellis, N. R.  
Miller, E., and Read, R. R., hydroxy-phenyl alkyl sulphides, A., 499.  
Miller, E. B., Connolly, G. C., and Silica Gel Corp., refining of liquid hydrocarbons, (P.), B., 821.  
and Silica Gel Corp., revivification of adsorbents, (P.), B., 465. Plastic composition [containing rubber], (P.), B., 515. Refining of liquid hydrocarbons, (P.), B., 821. Chamber process of manufacturing sulphuric acid, (P.), B., 827.  
See also Silica Gel Corp.  
Miller, E. C., chemical-mechanical treatment of sewage and sewage-sludge at Dearborn [Mich.], B., 766.  
Miller, E. G., jun. See Eastman, I.  
Miller, E. J., adsorption of electrolytes by ash-free charcoal. VII. Evidence that negative adsorption of inorganic bases decreases with time of contact of charcoal with solution, A., 121.  
and Bandemer, S. L., adsorption from solutions of electrolytes by ash-free adsorbent charcoal, A., 773.  
Miller, E. P., demountable metal X-ray tube, A., 925.  
Miller, E. V., and Brooks, C., effect of carbon dioxide content of storage atmosphere on carbohydrate transformation in certain fruits and vegetables, A., 103.  
Miller, F. L. See Bartell, F. E.  
Miller, F. W. See Swett, W. W.  
Miller, G. E., and Witherspoon, S. C., preparation of arsenic trichloride, (P.), B., 147.  
Miller, G. R. See Raiford, L. C.  
Miller, Harry, treatment of dry-cleaning fluids, (P.), B., 667.  
Miller, Henry, and New Process Metals Corp., removal of gases from enclosed spaces [e.g., thermionic valves], (P.), B., 397.  
Miller, H. J., Cahn, F. J., and Grigsby-Grunow Co., preparation of oxide coatings [for electron-emissive surfaces], (P.), B., 639.  
and Grigsby-Grunow Co., coated electron-emitting surface, (P.), B., 716.  
See also Brownson, H. W., and Imperial Chem. Industries.  
Miller, H. S. See Whitehead, T. H.  
Miller, J. A. See Rojahn, C. A.  
Miller, J. G. See Houghton, A. C.  
Miller, J. L., corrosion-resistant steels. I. Alloys for use in contact with sulphuric acid. II. Inter-crystalline corrosion in chromium-nickel austenitic steels; its effect, cause, and cure, B., 150.  
Miller, J. P. See Adams, A. S.  
Miller, J. T. See Ferguson, A.  
Miller, L. P., effect of sulphur compounds in breaking the dormancy of potato tubers and in inducing changes in enzyme activities of treated tubers, B., 323. Effect of various chemicals on sugar content, respiratory rate, and dormancy of potato tubers, B., 727.  
See also Denny, F. E., and Kraybill, H. R.  
Miller, M. See Demeter, K. J.  
Miller, M. F., and Krusekopf, H. H., influence of systems of cropping and methods of culture on surface run-off and soil erosion, B., 725.  
Miller, Marvin F. See Shiffer, W. H.  
Miller, O., stereoisomerism 1:2-dimethylcyclohexanes, A., 815.  
and Piaux, L., Raman spectra of *cis*- and *trans*-1:2-dimethylcyclohexanes, A., 998.  
Miller, P. S. See Gen. Electric Co.  
Miller, R. C. See Keith, T. B.  
Miller, R. E. See Gershenfeld, L.  
Miller, R. L., Bassett, I. P., and Yothers, W. W., effect of lead arsenate insecticides on orange trees in Florida, B., 404.  
Miller, R. P., and Kirk, P. L., quantitative drop analysis. II. Determination of calcium, A., 1262.  
Miller, R. W., use of tor Meer type centrifugal separators in salt works, B., 447.  
Miller, S. P., and Barrett Co., operation of coal-distillation plants, (P.), B., 51. Preparation of cresoting compositions, (P.), B., 99, 775. Reduction of nitro-compounds, (P.), B., 297. Distillation of tar, (P.), B., 419, 499, 774, 951. Apparatus for distilling tar, (P.), B., 535. Removal of phenols from waste and other liquors, (P.), B., 660. By-product coke-oven recovery system, (P.), B., 693. Electrical precipitation, (P.), B., 693. Production of clean oils at coal-distillation plants, (P.), B., 693. Fume arresters for cupola furnaces, (P.), B., 711. By-product coke-oven operation, (P.), B., 820, 1043. Operation of cupola furnaces, (P.), B., 833. Distillation of tar and simultaneous production of high- and low-m.p. pitches, (P.), B., 851.  
Ellms, E. H., and Barrett Co., recovery of light oils [from coal-distillation gases], (P.), B., 534.  
Miller, T. D. See Bredel, F.  
Miller, T. S., kiln-drying of barley. II., B., 729.  
Miller, W., Henriksen, A., Zurcher, P., and Continental Oil Co., conversion of hydrocarbon materials, (P.), B., 854.

- Miller, Wilber B., and Oxweld Acetylene Co., arc-welding electrode, (P.), B., 113.
- Miller, William B. See Brit. Celanese.
- Miller, W. C., and Bryant, D. M., apparatus for scouring small samples of wool and a modified apparatus for determining dry weights, B., 55.
- Miller, W. E. See Jones, G. W.
- Miller, W. J., [machine for] manufacture of pottery ware, (P.), B., 788.
- Miller, W. L., Eastcott, E. V., and Maconachie, J. E., Wildiers' bios; fractionation of bios from yeast, A., 637.
- Eastcott, E. V., and Sparling, E. M., fractionation of bios II, A., 427.
- Miller Rubber Co., Inc. See Warner, R. M.
- Milliff, F. A., and Milliff, J. A., petroleum refining apparatus, (P.), B., 100.
- Milliff, J. A. See Milliff, F. A.
- Milligan, C. H., Klosky, S., and Amer. Agricultural Chem. Co., obtaining orthophosphoric acid and conversion products thereof, (P.), B., 266.
- Milligan, W. O., recording photodensitometer for X-ray powder photographs, A., 1264.
- See also Weiser, H. B.
- Millikan, R. A., cosmic-ray light on nuclear physics, A., 1100.
- Millington, A. E., paper manufacture, (P.), B., 103.
- and U.S. Nat. Bank of Portland, wall-board, etc., (P.), B., 270.
- Millner, I. J. See Noller, C. R.
- Millner, T., solution of tungsten by ammoniacal solutions of cupric hydroxide, A., 796.
- and Kunos, F., determination of silicon, aluminium, fluorine, and orthophosphoric acid in presence of one another. I. II. Determination of fluorine and orthophosphoric acid in presence of silicon and aluminium in aqueous solutions of water-soluble mixtures containing alkali fluorides or fluosilicates, cryolite, orthophosphoric acid or its alkali salts, A., 41, 478.
- Millot, J., and Jonnart, R., phenolic substance in spider's blood, A., 1316.
- Mills, A. J., modern water softening, B., 847.
- Mills, E. See Marsh, E. C. J.
- Mills, E. V., nature and amount of colloids present in sewage. II. Physical and chemical analysis of sewage. III. Influence of  $pH$  value on physical properties of sewage liquor, B., 94.
- Mills, G. E. See Lewis, R. C.
- Mills, L. E., and Dow Chem. Co., amine salts, (P.), B., 297.
- See also Britton, E. C.
- Mills, W. H., stereochemistry of cyclic compounds, A., 818.
- Mills Alloys, Inc. See Marvin, O. F.
- Milne, G. R., and Rattray, G., fungal growths in *Liquor arsenicalis* B.P. 1932, B., 412.
- Milner, H. W. See Mackinney, G.
- Milner, R. T. See Southard, J. C.
- Milobedzki, T., polar valencies of carbon, A., 11.
- Milone, M., behaviour of heterocyclic compounds towards ozone, A., 838.
- Raman effect of tetranitromethane, A., 1228.
- Raman spectrum of heterocyclic compounds. II, A., 1228.
- and Müller, Geza, Raman spectrum of heterocyclic compounds. I, A., 886.
- Miloslavski, N. M., and Vepritzkaja, V. F., rapid determination of chlorine in organic compounds, A., 292.
- Miloslavski, S. Y., determination of phosphine in crude acetylene, B., 6.
- Milroy, J. A. See Andrews, S.
- Milsom, J. R., and Mylon Corp., treatment of jute fibres [to resemble cotton, wool, or hair], (P.), B., 698.
- Milton, R. See Obermer, E.
- Milyaev, E. A., electric smelting of iron ore, B., 750.
- Min, P., influence of Chinese antidiabetic drugs on rabbit's blood-sugar. I, A., 186.
- Minagawa, T., amylosynthase. II.—VII., X. and XI., A., 1330.
- Minami, S. See Tatsuki, K.
- Mindeleff, C., and Robinovitch, L. G., [perfumed preparations containing] hypochlorites, (P.), B., 266. [Dry active] chlorine preparations, (P.), B., 625.
- Mine & Smelter Supply Co. See Wells, S. D.
- Miner, C. G., production of anhydrous aluminium chloride and nitrogen compounds, (P.), B., 625.
- Miner, Inc., W. H. See Johnson, G. A.
- Mineralite Corporation. See Kitsée, J.
- Minerals Increment Co. See McInerney, R. J.
- Minerals Separation, Ltd. See Jones, Frank Butler, and Taplin, T. J.
- Minerals Separation North American Corporation. See Trotter, W.
- Mines, H. M., and Beech, W. A., phosphorescent or luminous masses or compounds, (P.), B., 785.
- Mines Domaniales de Potasse d'Alsace. See Forrer-Jaggi, R. C.
- Ming, P. C. See Rollet, A. P.
- Mingard, A. L., hard objects of carbon silicido or similar substances, (P.), B., 62.
- Mingoia, Q., new salts of quaternary ammonium bases, A., 597.
- Pyrazoles. II. Acylation of pyrazole, A., 837.
- Action of ultra-violet rays of various frequencies on solutions of alkaloids, A., 1077.
- Minker-Bogdanova, E. T. See Obrastzov, G. D.
- Minne, J. L. van der. See Colas Products, Ltd.
- Minné, N., and Adkins, H., structure of reactants and extent of acetal formation, A., 280.
- Minnesota Mining & Manufacturing Co. See Hatch, L. A.
- Minnibeck, H., relation between bile acids in the faeces and resorption of fat in children, A., 310.
- Minnis, W., and Nat. Aniline & Chem. Co., homologues of aniline, (P.), B., 12.
- Mino, E., McCann, J., Fischer, M., Radcliffe, T. D., and Standard Oil Co. of California, arc-welding electrode, (P.), B., 555.
- Minor, J. E., relation of sizing and acidity to permanence of paper, B., 14.
- Minot, A. S., Dodd, K., and Bryan, W. R., chemical action of sodium citrate as a cause of certain transfusion reactions, A., 734.
- See also Bryan, W. R.
- Minovici, S., and Vanghelovici, M., bile acids. III. Enolisation of dehydrocholic acid and experiments on the structure of the acid, A., 712.
- Structure of the second ring of cholesterol, A., 1290.
- Minter, C. C., determination of paraffin and naphthene contents of gasolines, B., 773.
- Mintz, I. B., [sugar] defecation with a small amount of lime by the Friedrich U.S.R.I. method, B., 165.
- Benin, G. S., Bolotov, N. P., Maximov, A. A., and Saenko, I. I., rationalising beet drying, B., 1075.
- Khelemski, I. Z., Shoikhet, I. I., and Orel, V. F., 200 days' sugar manufacture [at the Vozrozhdenie factory] during 1931—1932, B., 441.
- Krasilschikov, B. E., Glukhovski, I. E., and Udovichenko, V. V., purification of beet juice with a small amount of lime by the U.S.R.I. method, B., 165.
- Krasilschikov, B. E., and Udovichenko, V. V., purification of [sugar] diffusion water, B., 120.
- Minz, B., leech preparations; detection of acetylcholine in presence of other pharmacologically active substances of tissue origin, A., 90.
- Miquet, P. L. J., and Perron, M. P., electrothermic reduction of raw materials and apparatus therefor, (P.), B., 715.
- Mirčev, A. See Šandera, K.
- Mirchandani, H. D. See Paranjpe, G. R.
- Mirchandani, T. J., chemical aspects of decomposition of organic matter in soil, B., 35.
- Mirimanov, K., fossil soils in Armenia, A., 484.
- Miró, A. R., and Morales, N. G., catalytic activity and potential of the catalyst, A., 912.
- Mironescu, A., and Ioanid, G., derivatives of furan, A., 1310.
- Ioanid, G., and Nicolescu, I., difurylbutadiene and -hexadiene, A., 831.
- Derivatives of furfuraldehyde, A., 839.
- and Nicolescu, I., azo-dyes, A., 1286.
- Mironov, A. A., nickel from Ufaley nickel ores, B., 391.
- Mirov, N. T. See Foote, P. A.
- Mirsky, I. A., and Bruger, M., Liebermann-Burchard colour reaction for cholesterol, A., 271, 1218.
- Miscampbell, H., and Blaw-Knox Co., [lime] kiln, (P.), B., 508.
- Lime hydrator, (P.), B., 624.
- Mischnat, H., consequences of total extirpation of the pancreas in dogs, A., 526.
- Mischnat, M. See Junkersdorf, P.
- Mischoustin, E. N., bacteria fermenting urica, A., 190.
- Mishawaka Rubber & Woolen Manufacturing Co. See Bradley, C. E.
- Mishima, T., alloys for permanent magnets, (P.), B., 712.
- Mishkis, M., Ritchie, E. B., and Hastings, A. B., bromide and chloride distribution between serum and cerebrospinal fluid, A., 1319.
- Mislowitz, E., and Silver, S., potential of the mucous membrane of the stomach. I, A., 299.
- Silver, S., and Rothschild, M., potential of the mucous membrane of the stomach. II. Potential of the gastric mucosa and absorption, A., 299.
- Misono, A. See Tanaka, Y.
- Misra, R. N. See Bal, D. V.
- Misu, H., relation between decomposition of green manures at different temperatures and their chemical constituents, B., 483.

- Mitchell, A. C. G., hyperfine structure and the polarisation of resonance radiation. II. Magnetic depolarisation and the determination of mean lives, A., 760.
- Mitchell, A. M. See Bell Bros. (Manchester 1927), Ltd.
- Mitchell, B. F., apparatus for recovering gold, silver, platinum, etc., from gravel, sand, and other deposits, (P.), B., 634.
- Mitchell, C. A., colorimetric determination of oxalic acid, A., 687. Erasures and ultra-violet light, B., 1050.
- and Ward, T. J., sediments in ink and in writing, B., 157.
- Mitchell, C. D. See Robinson Bros.
- Mitchell, C. R., Potter, G. J., and Ross, J. H., effect of variables in the soda [wood-pulp] process, B., 13.
- Mitchell, D. M. See Thompson, Geoffrey.
- Mitchell, D. T., and Marvel, C. S., cyclisation of substituted divinylacetylenes, A., 1270.
- Mitchell, H. A., Gregg, A. W., and Bonney-Floyd Co., wear-resisting [tungsten-chromium] ferrous alloy [welding rod], (P.), B., 633.
- Gregg, A. W., Frank, R. H., and Bonney-Floyd Co., non-corrosive steel alloy, (P.), B., 873.
- Mitchell, H. E., and Samet-Solvay Co., regenerative coke oven and method of operating the same, (P.), B., 692.
- Mitchell, H. H., application of paired feeding method to determination of relative vitamin-B contents of foods and artificial concentrates, A., 1213.
- and Hamilton, T. S., effect of long-continued muscular exercise on chemical composition of muscles and other tissues of beef cattle, A., 975.
- See also Ellis, M., and Garrett, O. F.
- Mitchell, J. H. See Cooper, H. P.
- Mitchell, J. K., and Dispersions Process, Inc., purification of bodies [e.g., rubber] insoluble in water, (P.), B., 677. Recovery of fibrous material and rubber from waste rubber stock, (P.), B., 1070.
- Mitchell, J. M., apparatus for reducing rock and other mineral substances, (P.), B., 448.
- Mitchell, J. S., diamagnetism of free electrons, A., 449.
- Mitchell, J. W. See Shull, C. A.
- Mitchell, L. C., water-soluble nitrogen and water-soluble nitrogen precipitable by 40% alcohol [in eggs and egg products], B., 40. Composition of shell eggs, B., 522. Decomposition of lecithin in eggs, B., 522.
- and Alfend, S., determination of volatile oil in cloves, B., 525.
- Alfend, S., and McNall, F. J., composition of whites, yolks, and whole eggs broken out by commercial egg-breaking establishments, B., 683.
- Mitchell, R. B., and Athol Manufg. Co., removing diphenylamine from nitrocellulose [smokeless] powder [for lacquers and artificial leather], (P.), B., 685.
- Mitchell, R. L. See Ritter, G. J.
- Mitchell, S. A., and Williams, E. T. R., relative distribution and abundance of elements in the lower chromosphere, A., 250.
- Mitchell, W., and Hibbert, H., reactions relating to carbohydrates and polysaccharides. XLI. Structure of raffinose levan, A., 148.
- Mitchell, W. B., and Bennie, H. D., effective heat exchange in lower zones of regenerators, B., 895.
- See also Dougall & Sons, Ltd., J.
- Mitchell, W. E., and Anaconda Copper Mining Co., removal of germanium from zinc sulphate solutions, (P.), B., 61.
- Mitchell, W. J. See Ford, J. S.
- Mitford, W. B. See Brocklebank, E. W.
- Mitinsky, A., heating of sand [moulds] during casting [of cast iron], B., 1058. Modulus of elasticity of metals at various temperatures, B., 1060.
- Mitolo, M., avitaminosis and intoxication. I. Experimental polyneuritis and chemical intoxication by metals and metalloids. II. Experimental scurvy and chemical intoxication by metals and metalloids. III. Experimental syndrome from avitaminosis-A and chemical intoxication by metals and metalloids, A., 433, 870.
- Mitra, S. K., thioaldehydes and thioketones. I., A., 504.
- See also Rây, (Sir) P. C.
- Mitra, S. M., thioketonic esters. II., A., 698.
- See also Krishnan, K. S.
- Mitrofanov, S. I., flotation of copper pyrites from the Kalatinsk mine, B., 308. Separation of copper from slags by flotation, B., 308.
- Mitropolski. See Dijatschkovski, S. I.
- Mitsche, R., phosphide eutectic in cast iron, B., 1058.
- Mitscherlich, E. A., phytophysiological soil analysis, B., 81.
- Mitsui, K., iodine content of the thyroid gland. II., A., 1322.
- Mitsui Mining Co. See Tatsumi, Y.
- Mitsunse, B., components of hæmolytic complements, A., 624.
- Mitsushima, E. See Kato, Y.
- Mitsuwa, T. See Kotake, M.
- Mittasch, A., development of the theory of catalysis during the 19th century, A., 1125, 1251.
- Mitteau, F., and Soc. d'Études Scientif. et d'Entreprises Industr., microcosmic salt and other fertilising material, (P.), B., 427.
- Mittelsteiner, E., measuring water contents [of solids or liquids], (P.), B., 289.
- Mitter, P. C., synthesis of anthraquinones occurring in nature, A., 829.
- Mittermaier, R., mineral metabolism in inflammatory conditions of ear, nose, and throat. I. Content of fluids and total mineral content, A., 853.
- Mitra, R. N. See Dhar, N. R.
- Miura, M., and Okabe, N., vitamin-C in commercially sterilised milk and Japanese green tea, A., 542.
- and Tsujimura, M., vitamin-C in Japanese green tea, A., 542.
- Miura, V., adrenaline content of the adrenal gland during upper intestinal obstruction, A., 1191.
- Miwa, T., splenic hormone and calcium metabolism, A., 194. Spleen hormone, A., 320.
- Mix, A. J., factors affecting sporulation of *Phyllosticta solitaria* in artificial culture, A., 1094.
- Miyagi, S., brucine as internal indicator in dichromate titrations, A., 800.
- See also Matsui, M.
- Miyaji, D., vertical distribution of  $p_{\text{H}}$  in eutrophic lakes during the stagnation period, A., 1028.
- Miyajima, S. See Takei, S.
- Miyake, N., separation and zinc content of the nucleus [of blood-corpuscles], A., 965.
- Miyamoto, Sadaichi, and Schmidt, C. L. A., transference and conductivity studies on solutions of proteins and amino-acids with special reference to formation of complex ions between the alkaline earths and proteins, A., 230.
- Miyamoto, Susumu, heterogeneous chemical reactions in the silent electric discharge. I.—IV., A., 33, 576, 682. Theory of solution of gas in liquid. II. Rate of solution of gas in liquid containing a reacting substance; kinetic derivation of the distribution law, A., 233. Theory of the rate of sublimation, A., 787. Theory of the rate of solution of solid into liquid, A., 787.
- and Utunomiya, E., rate of solution of oxygen in alcoholic solutions of anhydrous stannous chloride, A., 670.
- Miyanaga, K. See Oshima, Yoshiakiyo.
- Miyaoka, U., and Tsubota, T., colour-absorptive power of Bemberg silk. II. Basic dyes, B., 224. Comparative tests of absorptive power for substantive dyes of Japanese viscose rayons, B., 424. Comparative studies of absorptive power for substantive dyes of viscose rayon and cotton, B., 424. Dyeing of Bemberg silk. I., B., 461.
- Miyashita, K., and Yamashita, U., methods of deodorising fishes, (P.), B., 410.
- Miyata, A. See Setoh, S.
- Miyazaki, Y. See Hiki, Y.
- Miyazawa, K., air separator for determining fineness of cement, B., 269.
- Mizener, L. A., and Chicago Mill & Lumber Corp., printing or graining [of wood], (P.), B., 789.
- Mizuno, H., lactic acid in bile; lactic acid content of the urine of patients with liver disease and of rabbits with experimentally injured liver; lactic acid content of blood and bile in lactic acid-loading in rabbits having injured livers, A., 526.
- Mizushima, S., and Higasi, K., dependence of dipole moment of  $\alpha\beta$ -dichloroethane on the temperature and solvent, A., 339.
- Mizuta, M., preparation of mono- or dinitrotoluene from aromatic gasoline of Shukukōkō crude oils by direct nitration, B., 181, 453. Separation of aromatic hydrocarbons from aromatic gasoline by extraction with liquid sulphur dioxide, B., 212. Separation of toluene from the toluene fraction of gasoline, by the formation of its azeotropic mixture with methyl alcohol, B., 212. Preparation of trinitrotoluene from aromatic gasoline of Shukukōkō crude oils, B., 617. Gasoline fractions of representative Japanese crude petroleum. XII., B., 738. Isolation of benzene from Shukukōkō crude oil and its identification by comparing its properties with those of pure benzene, B., 900.
- Mizutani, M., obtaining a substance which reduces hyperglycæmia, (P.), B., 685.
- Mizutsch, K. G., and Polikarpova, K. N., analysis of technical chlorobenzene, B., 855.
- Mjassnikov, A. L., rôle of the liver in cholesterol metabolism, A., 630.
- Mjorud, J. P., waterproofing compound [for fabrics], (P.), B., 276.



- Mladenović, M.**, elemic acid from Manila elemic resin. VI. Oxidation product of  $\alpha$ -elemic acid, A., 278. Oxidation product of  $\alpha$ -elemic acid, A., 830.  
See also Lieb, H.
- Młodzianowska, H.**, Raman spectra of isomeric compounds, A., 7.
- Młodziejowski, A. B.**, fusion curves of solid solutions with compound formation, A., 1013. Singular points of fusion curves, A., 1013.
- Mnookin, N. M.** See Patrick, J. C.
- Moberg, E. G.**, and Harding, M. W., boron content of sea-water, A., 928.  
See also Gee, H., and Kirk, P. L.
- Mobley, R. L.** See Owen, W. L.
- Mochida, T.**, isolation of *l*- $\alpha$ -terpineol from Japanese camphor oil, B., 892.
- Modave, A.**, and Pickin, J., jun., apparatus for separation of dust or other particles from gaseous fluid by washing, (P.), B., 371.  
See also Ateliers J. Hanrez Soo. Anon.
- Modi, N. J.**, [pharmacological effect of] milk, A., 421.
- Modiuddin, M. G.**, and Katti, M. C. T., raponticin, and anthraquinone derivatives from *Rheum emodi*, Wall (Indian or Himalayan rhubarb), A., 878.
- Möbius, E.** See Le Blanc, M.
- Möhl, W.** See Meyerhof, O.
- Möhringer, K.**, soil examination in viticulture, B., 516.
- Möldner, H.** See Hättig, G. F.
- Möller, E. F.** See Kuhn, R.
- Möller, F.** See Röntgen, P.
- Möller, H.** See Leshchewski, K.
- Moeller, J. F. L.**, gases from oil, (P.), B., 8.
- Moeller, K.**, accurate determination of lattice constants by the Debye-Scherrer method, A., 213. Specially suitable standard substance for the accurate determinations of lattice constants by the Debye-Scherrer method, A., 557.
- Möller, K. O.**, determination of percarine in urine, A., 633.
- Möller, R.** See Gen. Electric Co.
- Moeller, W. J.**, and Carey Manufg. Co., P., asbestos cement building material, (P.), B., 918.  
See also Leshner, N.
- Möllerström, J.**, periodicity in carbohydrate metabolism, A., 302.
- Möltig, H.**, and Weyl, W., behaviour of glass-forming oxides at high oxygen pressures, B., 1009.
- Moelwyn-Hughes, E. A.**, and Legard, A. R., kinetics of the addition of iodine to  $\beta$ -phenylpropionic acid, A., 573.  
See also Hinshelwood, C. N., Musgrave, F. F., and Newling, W. B. S.
- Moen, A.**, digestibility of cheese, A., 743. Free fatty acid content of herring-meal fat, B., 973.
- Moen, J. K.**, and Reimann, H. A., immune reactions in diabetes, A., 738. Plasma-protein changes and suspension stability of the blood in lobar pneumonia, A., 1072.
- Mönch, G.**, relation of optical transparency of cuprous oxide to electrical conductivity, A., 8. Thermo-electric force and voltaic potential of cuprous oxide, A., 662. Theory of thermo-electric e.m.f. between a semi-conductor and metal according to Fermi statistics, A., 769. Crystal photo-effect, A., 1230.
- Mönch, G.**, apparatus for determination of resonance potential of mercury vapour for practice purposes, A., 1265. Demonstration of pumping action of water-jet, mercury vapour-jet, and diffusion pumps, B., 415.
- Möring, W.** See Schmalfuss, Hans.
- Moerk, F. N.**, electrolytic determination of arsenic, A., 1132.
- Moermann, N. F.**, m.p. diagram of the system phenol-benzoic acid, A., 906.
- Moffett, E. W.** See Suter, C. M.
- Moffitt, W. G.**, colorimetric determination of chloroform, A., 254.
- Moggi, A.** See Gallotti, M.
- Mogilski, A.**, physico-chemical properties of prolan, A., 643.
- Mohammad, A.** See Liebhafsky, H. A.
- Mohammad, W.**, and Sharma, P. N., hyperfine structure of arc lines in vacuum of bismuth in the visible and ultra-violet regions, A., 2, 108.
- Mohanti, H. B.** See Deb, S. C.
- Mohler, F. L.**, recombination radiation in the caesium positive column, A., 880.  
See also Boeckner, C.
- Mohler, H.**, nephelometric determination of sulphate in drinking water, B., 366.  
and Almasy, F., spectrophotometric investigation of the Jaffé-Folin reaction for creatinine, A., 1064.  
and Benz, H., colour reactions of almond and apricot-kernel oils, B., 1017.
- Mohr, C. B. O.**, and Nicoll, F. H., large-angle scattering of electrons in gases, II., A., 3.  
See also Massey, H. S. W., and Nicoll, F. H.
- Mohr, J. S.**, Born, W. G., and Mohr & Sons, J., hot-metal mixer, (P.), B., 69.
- Mohr, O.**, dependence of the minimum potential of electrolytic valve action on significant variables, A., 1248.  
See also Günther-Schulze, A.
- Mohr, W.**, technique of butter manufacture, B., 1080. Determination of nicotine in tobacco and in parasitoids containing nicotine, B., 1084.  
and Moos, J., determination of swelling of casein, A., 1012. Measurement of interfacial tension of fats by the drop-pressure method, B., 717.  
and Müller, W., souring of sweet concentrated skim milk, B., 90.
- Mohr & Sons, J.** See Mohr, J. S.
- Mohry, F.** See Menzel, W.
- Mohs, K.**, glucosides of *Digitalis lanata*, Ehrh., A., 877.
- Möhllet, J. L.** See Hartley, G. S.
- Moitra, G. C.** See Bunce, Edwin H.
- Mokeyev, B. G.**, volumetric determination of tungsten, A., 138.
- Mokragatz, M.**, absorption of nickel by *Aspergillus niger* grown on Raulin's medium containing nickel sulphate, A., 535. New reagent for identification of alkaloids, A., 621.
- Mokruschin, S. G.**, surface energy of molecules, and their physico-chemical properties. II. Surface energy and b.p. of members of homologous series, A., 343.  
and Krilov, E. I., surface energy of molecules, and their physico-chemical properties. III. Surface energy and b.p. of homologues of acyclic series, A., 343.
- Moldavskaja, E. A.**, specificity of the electric charge of yeast cells, A., 427.
- Moldavski, B.**, and Prokopchuk, N., catalytic desulphurisation of benzene containing thiophen by destructive hydrogenation, A., 267.
- Moldenhauer, M.**, red lead, B., 398. Material and heat balance in manufacture of copper sulphate from [copper] granules, B., 426. Heavy and light zinc white, B., 977.
- Moldrickx, P.** See Richter, K.
- Moles, E.**, and Batuecas, T., density and compressibility of ammonia; at. wt. of nitrogen, A., 453.  
and Roquero, C., comparison of desiccating agents. I., A., 781. Hydrates of magnesium perchlorate, A., 916.  
and Sancho, J., intensive drying. II. Reaction between ammonia and phosphorus pentoxide, A., 918.  
See also Sancho, J., and Solana, L.
- Molinari, H.**, pentacrythritol, B., 821.
- Molkentin, J. R.** See Buschmakin, I. N.
- Moll, F.**, artificial drying of wood, B., 749.
- Moll, H.**, explosion hazard in analysis of calcium carbide, B., 265.
- Moll, T.**, Dalmer, O., Dobeneck, P. von, Domagk, G., and Laquer, F., determination of vitamin-A in a concentrate, "Vogan," A., 645.  
Domagk, G., and Laquer, F., evaluation of the vitamin-A concentrate "Vogan"; avitaminosis-A, A., 1088.  
See also Michael, F.
- Molliard, M.**, attenuation of chlorophyll in green parasitic plants, A., 196.
- Mollwo, E.**, additive coloration of alkali halide crystals, A., 577. Colour centres of alkali halide crystals, A., 997.
- Moloney, P. J.**, and Taylor, E. M., effect on solutions of diphtheria toxin and diphtheria antitoxin of contact with certain surfaces, A., 191. Assay of the antigenic value of diphtheria toxoid, A., 318.
- Molybdenum Corporation of America.** See Sessions, R. L.
- Molyneux-Ffennell, K. S.**, and Benjamin Electric, Ltd., filters for air and other gases, (P.), B., 371.
- Monack, A. J.**, and Smith, R. K., dielectric strength of porcelain: influence of porosity, B., 705.
- Monchal, S.** See Beauverie, J.
- Moncrief, R.** See Corbett, C. M.
- Moncrieff, R. W.** See Brit. Celanese.
- Mond, R.**, and Netter, H., regulation of sodium by muscle, A., 184.
- Mond Nickel Co., Ltd.**, annealing of steels and alloys, (P.), B., 1063.  
and Griffiths, W. T., [nickel-copper] alloys, (P.), B., 235.
- Mondain-Monval, P.**, physical properties of heterogeneous ternary mixtures, A., 562.  
and Wellard, R., direct oxidation of acetylene by air, A., 694.
- Moness, E.** See Christiansen, W. G.
- Monguillon, P.** See Lemoigne, P.

- Monguió, *J.* See Weiss, *A. G.*, and Wermer, *P.*
- Monheim, *J.* See Lange, *E.*
- Monier, *J. A.* See Dufraisse, *C.*
- Monier-Williams, *G. W.*, determination of the true f.p. of milk, *B.*, 569.
- Monk, *G. S.*, adaptation of the interferometer for hyperfine structure, *A.*, 1265.
- Monk, *H. E.*, case of chronic lead poisoning, *A.*, 979.
- Monkwitz, *R. C.*, Berry, *M. H.*, and Boyer, *W. C.*, effects of freezing on physical and nutritional properties of milk, *B.*, 1079.
- Monnet, *R.*, erythroquinone reaction: its realisation, technique, and specificity, *A.*, 965. Detection of quinine in urine by erythroquinone reaction, *A.*, 1077.
- Monnier, *R.* See Gutzeit, *G.*
- Monobe, *S.* See Kishi, *Y.*
- Monod-Herzen, *G.* See Auger, *P.*
- Monosohn, *A. M.* See Schattenstein, *A. I.*
- Monrad, *K. J.*, sweetened and flavoured dessert made with rennin, (*P.*), *B.*, 1034.
- Monro, *D. A.*, and Standard Oil Co., fractionating system, (*P.*), *B.*, 530.
- Monroe, *C. F.* See Krauss, *W. E.*
- Monsanto Chemical Works, purification of organic acid chlorides, (*P.*), *B.*, 904.
- and Smith, *S.*, purification and decolorisation of aromatic hydroxycarboxylic acids, (*P.*), *B.*, 183.
- See also Carswell, *T. S.*, Davis, *A. B.*, Dvornikoff, *M. N.*, George, *A.*, and Livingston, *J. W.*
- Monson, *L. T.* See De Groot, *M.*
- Montagne, (*Mlle.*) *M.*, and Rousseau, (*Mlle.*) *G.*, preparation of anils of simple aliphatic ketones, *A.*, 602.
- Montagne, *P.*, graphical determination of homogeneous equilibrium between three constituents, *A.*, 464. [Decomposition of methane by condensed sparks], *A.*, 576.
- Montani, *L. G.* See D'Ignazio, *C.*
- Montefredine, *A.*, [olive] oil from the Province of Pescara, *B.*, 75.
- Montelius, *G.*, McIntosh, *J. F.*, and Ma, *Y. C.*, mottled enamel and brown stain, *A.*, 739.
- See also McIntosh, *J. F.*
- Montemartini, *G.*, and Vernazza, *E.*, transformations of salts of trivalent metals in solution. V. Solubility of chromic sulphate and of potassium and sodium chrome alums, *A.*, 562.
- Montequi, *R.*, and Carreró, *J. G.*, simplification of the Treadwell and Mayr method [for determination of thiocyanate]; bromometric determination of bismuth, *A.*, 921.
- and Gallego, *M.*, molybdenum compounds, *A.*, 1021.
- Monterumici, *R.*, rapid analysis of medicinal extracts and tinctures, *B.*, 44.
- Montgomery, *A. E.*, drying rate of kraft paper, *B.*, 423.
- Montgomery, *C. G.*, magnetic properties of nickel colloids, *A.*, 1116.
- and Ross, *W. H.*, magnetic susceptibilities of lead, silver, and their alloys, *A.*, 449.
- Montgomery, *C. W.*, and Rollefson, *G. K.*, quantum yields of the photochemical reactions of carbonyl chloride; [reaction of carbonyl chloride with hydrogen], *A.*, 1255.
- See also Rollefson, *G. K.*
- Montgomery, *H.* See Butler, *A. M.*
- Montgomery, (*Miss*) *L. V.* See Baker, *W.*
- Montgomery, *R. J.* See Higgins, *J. M.*
- Montgomery, *T.* See Ewing, *C. R.*
- Montgomery, *T. N.* See Irvine, (*Sir*) *J. C.*
- Montgomery Co., *H. A.* See Nill, *E. A.*
- Monti, *G.* See Padovani, *C.*
- Montignie, *L.*, cholesterol. XVI., *A.*, 947.
- Montigue, *L. H.* See Case, *G. O.*
- Montillon, *G. H.* See Ruth, *B. F.*
- Montonna, *R. E.* See Ruth, *B. F.*
- Montoro, *V.*, X-rays and elastic deformation of metals, *B.*, 352.
- Montreal Club, causes of and remedies for paint failure on plaster surfaces, *B.*, 976.
- Monyakova, *L. N.* See Gutman, *S. M.*
- Monypenny, *J. H. G.*, forging and rolling temperatures of steels, *B.*, 390.
- Moog, *H.* See Küster, *A.*
- Mook, *D. E.* See Nair, *J. H.*
- Mookerjee, *H. C.* See Chakravarti, *P. N.*
- Moomaw, *W. A.* See Ray, *F. E.*
- Moon, *C. H.* See Garner, *W. E.*
- Moon, *H. H.* See Culpepper, *C. W.*
- Moon, *V. H.*, and Kennedy, *P. J.*, changes in blood concentration incident to shock, *A.*, 1078.
- Mooney, *R. B.*, and Reid, *H. G.*, reactions between hydrogen iodide and cyanogen halides, *A.*, 1250. Reaction between hydrogen iodide and chlorine, *A.*, 1250.
- Mooney, *R. C. L.*, crystal structure of ammonium hydrogen carbonate, *A.*, 1234.
- Moor, *H. H.* See Stratford, *R. K.*
- Moore, *A. R.*, dependence of cytoplasmic structures in the egg of the sea-urchin on the ionic balance of the environment, *A.*, 633.
- Moore, *B.*, conductivity cell, *A.*, 139.
- Moore, *Bernard*, influence of characteristics and treatment of raw material on properties of fused-silica products, and effect of treatment of fused products on their properties, *B.*, 307.
- Moore, *Burrows*, vitreous air-lift pump, *B.*, 1. Measurement of absorption and retention of vapours by solids, *B.*, 335.
- See also Thermal Synd., Ltd.
- Moore, *B. H.* See Clarke, *W. G.*
- Moore, *C. G.*, Zucker, *M.*, and Glidden Co., [modified phenolic glyptal] synthetic resin, (*P.*), *B.*, 597.
- Moore, *C. U.*, and Plymate, *H. B.*, B-vitamins. VI. Pyloric obstruction in rats, *A.*, 324.
- Plymate, *H. B.*, and Andrew, *B. J.*, B-vitamins. III. Evidence of a third vitamin-B factor in yeast (*B<sub>1</sub>*) as shown by growth curves and clinical symptoms of first and second litter young of mothers raised on synthetic *B<sub>1</sub>* and *B<sub>2</sub>* diets. V. Myelin degeneration in the peripheral nerves of rats associated with low vitamin-B content of diet, *A.*, 324.
- Plymate, *H. B.*, Andrew, *B. J.*, and White, *V.*, B-vitamins. I. Statistical comparison of small and large litters of rats on a normal stock diet. II. Statistical comparison of rat litters on normal stock diets with litters on synthetic diets containing varying amounts of the vitamin-B complex and combinations of *-B<sub>1</sub>* and *-B<sub>2</sub>*, *A.*, 324.
- Plymate, *H. B.*, and White, *V.*, B-vitamins. IV. Report of litters obtained on a diet in which faeces were supplied as a sole source of vitamin-B, *A.*, 324.
- Moore, *C. W.*, and Oliver United Filters, filter, (*P.*), *B.*, 288.
- Moore, *E. E.*, Carter, *E. B.*, and Abbott Laboratories, ephedrine salts and oil solutions thereof, (*P.*), *B.*, 988.
- Moore, *E. H.*, casting of magnesium or its alloys, (*P.*), *B.*, 1064. ["Modified"] silicon-aluminium alloys, (*P.*), *B.*, 1064.
- Moore, *E. K.*, and Koppenhoefer, *R.*, chemistry of liming. V. Action of calcium hydroxide suspensions on steer hide. VI. Influence of various sulphides on unhairing [of hides] with calcium hydroxide suspensions. VII. Influence of various nitrogen compounds on unhairing [of hides] with calcium hydroxide suspensions, *B.*, 437, 481, 515.
- See also O'Flaherty, *F.*
- Moore, *F. W.* See Harty, *W. A.*
- Moore, *G.*, liquid [water] purification, (*P.*), *B.*, 654.
- Moore, *G. F.*, and U.S. Phosphoric Products Corp., purification of phosphoric acid, (*P.*), *B.*, 865.
- Moore, *H. K.*, and Brown Co., [hydraulic] cement composition, (*P.*), *B.*, 671.
- Moore, *J. C.*, electrical resistance of pear tissue as an index of maturity, *A.*, 758.
- Moore, *J. E.*, Chenick, *G. W.*, and Standard Oil Co., automatic Engler distillation apparatus, (*P.*), *B.*, 449.
- Moore, *L. P.*, and Hibbert, *H.*, action of sulphurous acid on cellulose, *B.*, 299.
- Moore, *M. B.* See Unger, *L.*
- Moore, *M. H.*, incidence and control of apple scab (*Venturia inaequalis*) and apple mildew (*Podosphaera leucotricha*) at East Malling, *B.*, 202. Spraying experiments on the control of pear scab at East Malling, *B.*, 566.
- Moore, *N. H.*, and Texas Co., treating [vapours of] hydrocarbons, (*P.*), *B.*, 500.
- Moore, *P.* See Burget, *C. E.*
- Moore, *Paul*. See Hartzell, *A.*
- Moore, *R. S.*, and Amer. Smelting & Refining Co., feeder for pulverised materials, (*P.*), *B.*, 688.
- Moore, *T.*, vitamin-A and carotene. X. Relative minimum doses of vitamin-A and carotene, *A.*, 871.
- and Ray, *S. N.*, vitamin-C and hexuronic acid, *A.*, 196.
- See also Booth, *R. G.*, Bowden, *F. P.*, and Dann, *W. J.*
- Moore, *T. S.*, and Young, (*Miss*) *M. W.*, relative stability of copper derivatives of  $\beta$ -diketo-compounds, *A.*, 36.
- Moore, *W.*, new development in fixation of nicotine [for insecticides], *B.*, 934.
- Moore, *W. B.* See Holmes, *A. D.*
- Moore, *W. E.*, Simpson, *G. L.*, and Pittsburgh Research Corp., annealing furnace, (*P.*), *B.*, 873.
- Moore Dry Kiln Co. See Steel, *J. I.*
- Moorhouse, *W. R.*, and Nat. Aniline & Chem. Co., [vat-dyeing process], (*P.*), *B.*, 622. Dyeing process, (*P.*), *B.*, 1006.
- Moorman Manufacturing Co. See Caldwell, *P.*
- Moos, *J.* See Mohr, *W.*
- Moracchini, *R.*, and Cossu, *B.*, determination of lactose in blood, *A.*, 845.
- Moraczewski, *W. von*, distribution of cations and anions in swelling gelatin, *A.*, 568.
- Grzycki, *S.*, Jankowski, *II.*, and Sliwinski, *R.*, blood-uric acid and uric acid excretion on different diets, *A.*, 1181.
- Moraine Products Co. See Sherwood, *C. F.*
- Morales, *N. G.* See Miró, *A. R.*

- Moran, J. A., [preparation of] food [beverages], (P.), B., 1031.
- Moran, R. C., and Vacuum Oil Co., lubricating oils, (P.), B., 52.
- Moran, T. See Lampitt, L. H., and Lloyd, (Miss) D. J.
- Morand, M., and Hautot, A., fine structure of Ka of carbon, A., 108. Structure of K lines of light atoms, A., 993.
- Morávek, V., biochemistry of Rous chick sarcoma. II., A., 414. Inorganic elements in malignant tumours (Rous chick sarcoma), A., 415.
- Morcom, A. R. See Schläpfer, P.
- More, A., specification for amyl alcohol for use in the Gerber test, B., 569.
- Moreau, L., and Vinet, B., rôle of reserve substances of the vine in setting of fruit and in ripening of the grapes, A., 102. Sulphurous acid in wine manufacture. III. Dissociation of combined sulphur dioxide in grape musts and wines, B., 1077.
- Morehouse, F. G., and Radio Corp. of America, [heat-sensitive] recording paper, (P.), B., 58. Electroplating [a coating] of wax [on paper], (P.), B., 716.
- Morel, A., and Policard, A., spectrographic microanalysis; histological detection of certain elements, A., 106.
- Morell, L. G., and Hanawalt, J. D., X-ray study of plastic working of magnesium alloys, A., 1238.
- Morell, S., and Link, K. P., methylglucosides of naturally occurring hexuronic acids. I. Preparation of methyl-*D*-galacturonide, A., 595.
- Morelle, E. See Santennoise, D.
- Morelle, J., and Steenhoudt, J., calcium and phosphorus metabolism in rhizomelic spondylosis, A., 853.
- Morélon, F. See Meersseman, F.
- Moreton, H. H., apparatus for dehydrating oils, (P.), B., 457.
- Englisch, O. B., and Craig, C. F., compound for treatment of [hydrocarbon] oils, (P.), B., 100. Compound for purifying [fatty] oils, (P.), B., 114. Apparatus for distilling oils, (P.), B., 294. Neutralisation of acids in [hydrocarbon] oils, (P.), B., 537. Compound for treatment of oils, (P.), B., 695. Compound for purifying [used] oils, (P.), B., 775.
- Morev, L. N. See Salkind, J. S.
- Morey, G. H. See Johnson, Warren C.
- Morey, G. W., phase-equilibrium relationships determining glass compositions, B., 704.
- and Merwin, H. E., relation between composition and density and optical properties of glass. I. Soda-lime-silica glasses, B., 61.
- Morf, R. See Karrer, P.
- Morfit, E. F. See McKinney, P. V.
- Morgan, A. See Bartels, L. C.
- Morgan, A. F., Field, A., and Nichols, P. F., effect of cooking on vitamin-A and -C content of fresh and dried apricots, B., 763.
- Langston, C. I., and Field, A., effect of carbon dioxide and sodium benzoate on vitamin-C content of orange juice, B., 1082.
- and Madsen, E. O., comparison of apricots and their carotene equivalent as sources of vitamin-A, A., 432.
- See also Smith, L. L. W.
- Morgan, B. G. E. See Coward, K. H., and Key, K. M.
- Morgan, C. F., and Watney, Combe, Reid & Co., perforate body adapted for use in aerating or carbonating liquids, for separating liquids from solids, for emulsifying immiscible ingredients, and other similar purposes, (P.), B., 945.
- Morgan, D. W. R. See Westinghouse Electric & Manufg. Corp.
- Morgan, E. See Ellis, O. C. de C.
- Morgan, F., fertiliser and destroyer of moss, (P.), B., 38.
- Morgan, G. T., plastics and their genesis, B., 755.
- and Burstall, F. H., dehydrogenation of pyridine by anhydrous metallic chlorides, A., 835.
- and Hardy, D. V. N., production of higher alcohols, aldehydes, and ketones, A., 809.
- and Holmes, E. L., formaldehyde condensations with aliphatic ketones. I., A., 74.
- Megson, N. J. L., and Holmes, E. L., application of low-temperature tar in the production of phenol-formaldehyde resins. II., B., 928.
- and Pettet, A. E. J., isolation of *p*-xylenol from phenolic mixtures, (P.), B., 907. Purification and decolorisation of phenols and neutral oils, (P.), B., 951.
- and Pratt, D. D., organic amines, (P.), B., 956.
- Pratt, D. D., and Pettet, A. E. J., application of phenolic constituents of tars as wetting agents, B., 504.
- and Walton, E., new derivatives of *p*-arsanilic acid. IV. *p*-Arsonoadipanic acid and related compounds. V. *p*-Arsinomethylmalonanilic acid and related compounds, A., 290, 1061.
- See also Collins, G. E.
- Morgan, H. E. See Jones, Brynmor.
- Morgan, John D., and Doherty Res. Co., reduction of phosphate rock, (P.), B., 464. High-temperature transfer material, (P.), B., 549. High-temperature insulating products, (P.), B., 549.
- Morgan, John David, combustion of an inflammable gas mixture by a hot wire, A., 355. Thermal and electrical theories of ignition, B., 134.
- Morgan, M. F., microchemical soil tests, B., 81.
- Morgan, O. M., laboratory comparison of detergent efficiencies of laundry soap builders, B., 718. Power laundry comparison of detergent efficiencies of alkaline soap builders, B., 754.
- Morgan, R. H., moisture spoils sugar boilings, B., 406.
- Morgan, S. O., Yager, W. A., and White, A. H., dielectric polarisation in solids, A., 663.
- Morgan, W. H. See Hinkel, L. E.
- Morgan, W. T. See Candlish, W. J.
- Morgan, W. T. J., and Thaysen, A. C., decomposition of specific bacterial polysaccharides by a species of *Myxobacterium*, A., 1207.
- Morgan Construction Co. See Isley, G. H.
- Morgans, W. M. See Baker, W.
- Morgen, R. A. See Raymond, G.
- Morgenstern, M. See Martin, L.
- Mori, I. See Shibata, Z.
- Mori, M., phosphatase in bovine kidneys. I.—III., A., 635.
- See also Fuseya, G., and Hori, I.
- Mori, S. See Hendrych, F.
- Morii, M., and Takabatake, Y., phosphatases of human uterine tumours, A., 628.
- Morikawa, K. See Watanabe, S.
- Morimasa, T. See Matsunami, H.
- Morimura, M. See Hori, I.
- Morisawa, K. See Binz, A.
- Morison, C. B., non-survival of red mould (*Monilia sitophila* group) at baking temperatures, B., 1079.
- Morita, S. See Osugi, S.
- Morito, K., iron deposition and anaemia of adult guinea-pigs into which "hemo-sol" colloidal iron has been injected subcutaneously and intraperitoneally, A., 1321.
- Moritz, G. See Tammann, G.
- Moritz, H. See Cissarz, A.
- Moritz, O., antigen-antibody reactions in plants, A., 106.
- Moritz, R., installation and manufacturing costs of sulphuric acid, B., 304. Construction of lead chambers for manufacture of sulphuric acid, (P.), B., 306.
- Morlet, E. See Le Thomas, A.
- Morley, N. See Seibert, F. B.
- Moro, G., detoxicating hormone of the liver [yakriton]. XXXVI. Effect of yakriton in maintaining the highest agglutinin titre, A., 195.
- Moross, W. P. D., and Amer. Cement Paint Co., cement size, (P.), B., 429.
- Morozov, I. R., mol. wt. and chemical structure of cellulose and starch, A., 55.
- Morozov, I. S., production of potassium chlorate by way of magnesia, B., 864.
- Morozov, K. A. See Rubinstein, A. M.
- Morozova, A. I. See Laschtschenko, P. N.
- Morozumi, N., anterior pituitary hormone, A., 1337.
- Morral, F. R., Phragmén, G., and Westgren, A., carbides of low tungsten and molybdenum steels, A., 896.
- Morrell, C. A., and Chapman, C. W., toxicity of neoarsphenamine. I. Increase on exposure to air. II. Characteristic curve for rats, A., 1079.
- See also Wakeman, A. M.
- Morrell, J. C., Alther, J. G., and Universal Oil Products Co., treating [cracked] hydrocarbon oil, (P.), B., 616.
- Egloff, G., and Universal Oil Products Co., treatment of hydrocarbon oils, (P.), B., 295. Refining of hydrocarbon oils, (P.), B., 537.
- Essex, J. L., and Universal Oil Products Co., refining of hydrocarbon oil, (P.), B., 821.
- Mekler, V. A., and Universal Oil Products Co., lampblack, (P.), B., 850.
- and Universal Oil Products Co., treatment of petroleum oils, (P.), B., 9. Treatment of hydrocarbon oils, (P.), B., 138. Refining of gasoline-like products of hydrocarbon oil conversion, (P.), B., 214. Refining of petroleum oils, (P.), B., 214, 499. Recovering condensable vapours from incondensable gas, (P.), B., 776. Production of resins or resin-like bodies from cracked hydrocarbon products, (P.), B., 853.
- See also Benner, H. P., Egloff, G., Fisher, A., and Lowry, C. D., jun.
- Morrell, R. S., Marks, S., and Samuels, H., the doubly conjugated system in the glycerides of  $\alpha$ - and  $\beta$ -clæosteric acids, B., 556.
- Morrill, E., treating oils and composition thereof, (P.), B., 775.

- Morrin, K. C. See Arneson, A. N.  
 Morris, A. C. See Ferguson, J. B.  
 Morris, C. J. O. R. See Davies, W. C.  
 Morris, D. E. See Small, L. F.  
 Morris, H. E., and Maass, O., discontinuity in the adsorption of gases, vapours, and liquids on solid surfaces at the critical temperature under critical pressure: system propylene-alumina, A., 1241.  
 Morris, N. See Fleming, G. B., and Morris, S.  
 Morris, S., metabolism in tetany, A., 87.  
 Morris, and Morris, N., volatile chlorine of blood, A., 294.  
 Morris, S. D. D. See Bowden, F. P.  
 Morris, T. N., and Bryan, J. M., influence of traces of a salt of tin in acid solution on rate of corrosion of mild steel, B., 231.  
 See also Bryan, J. M.  
 Morris, V. H., and Gerdell, R. W., rapid determination of potassium in plant tissues, A., 875.  
 Morrison, A. J., manufacture and uses of high-alumina cement and ordinary Portland cement, B., 589.  
 Morrison, A. L. See Heilbron, I. M.  
 Morrison, C. A. See Pierce, H. B.  
 Morrison, F. R. See Penfold, A. R., and Whitelock, E. J.  
 Morrison, G. O., and Shaw, T. P. G., vinyl plastics from carbide, B., 638. By-products of the carbide calcium industry; manufacture of ethylidene diacetate and vinyl acetate, B., 740.  
 See also Canadian Electro Products Co.  
 Morrison, J. See Ingham, J. W.  
 Morrison, P. J. See Ravdin, I. S.  
 Morrison, R. W. See Bliss, A. R., jun.  
 Morrison, S. See Friedenwald, J.  
 Morrison, T. J. See Ross, J. D. M.  
 Morrow, B. S., and Griswold, G. G., jun., high-grade concentrate from Butte copper ores, B., 920.  
 Morrow, J. E., and Aluminum Co. of America, recovery of cryolite, (P.), B., 547. Sodium aluminium fluorides, (P.), B., 588.  
 Morrow, J. M. See Randolph, E. E.  
 Morse, E. H. See McKee, R. H.  
 Morse, H. W., Donnay, J. D. H., and Ott, Emil, composition and structure of artificial spherulites, A., 691.  
 Morse, M. L. See Hunter, W. H.  
 Morse, P. M., and Allis, W. P., effect of exchange on the scattering of slow electrons from atoms, A., 994.  
 See also Rosen, N., and Vinti, J. P.  
 Morse, S. W. See Luck, J. M.  
 Morse, W., chemistry of integument. V. Colour reaction for hydroxyproline and its use in distinguishing the scleroproteins, A., 519.  
 Morse Boulder Destructor Co. See Thompson, S. H.  
 Mortell, E. E. See Hall, L. A.  
 Mortell Co., J. W. See Hall, L. A.  
 Mortensen, C., milk-treating apparatus, (P.), B., 170.  
 Mortenson, M., graphical analysis in [sulphide ore] flotation: its application in selective flotation of chalcopyrite in pyritic ores, B., 109.  
 Mortend, E., apparatus for digesting wood pulp, (P.), B., 699. Wood-pulp digester with internal-circulation conduit, (P.), B., 912.  
 Morth, H. See Pavelka, F.  
 Mortimer, B. See Rony, H. R.  
 Mortimer, F. S., and Giese, E. H., determination of ethyl alcohol in gasoline-alcohol mixtures, using a Zeiss immersion refractometer, B., 1043.  
 Mortimer, G. B. See Fink, D. S.  
 Mortland, J. A., and Smith, H. L., composition of matter; [plaster], (P.), B., 918.  
 Morton, A. A., and Peakes, L. V., jun., sterically hindered *tert*-carbinols; 2:4:6-tribromotriphenylcarbinol, A., 710. Micro-test for triarylcarbinols, A., 732. Reaction of a free radical, triphenylmethyl, with ethers, esters, and acetone, A., 815.  
 Morton, C., universal direct-reading hydrogen-ion potentiometer, A., 366. Decomposition of acetylsalicylic acid in aqueous solution, A., 1250. Official test for carbonate in sodium and potassium bicarbonates, B., 145. Composition of Fowler's solution, B., 523.  
 Morton, F. B. See Du Pont de Nemours & Co., E. I.  
 Morton, H. A., aromatic derivatives of 1:2-diaminoethane [ethylenediamine], (P.), B., 216. Vulcanisation of rubber, (P.), B., 801.  
 Morton, J., Harris, J. E. G., and Morton Sundour Fabrics, Ltd., dyeing [animal fibres, etc.], with vat dyes, (P.), B., 667.  
 Morton, J. M. See Pease, R. N.  
 Morton, R. A., and Edisbury, J. R., absorption spectrum of unsaponifiable matter from wheat-germ oil, A., 651. See also Edisbury, J. R., Gillam, A. E., Lovern, J. A., and Watson, S. J.  
 Morton, T. H. See Boulton, J.  
 Morton Salt Co. See Hochwalt, C. A.  
 Morton Sundour Fabrics, Ltd. See Morton, J.  
 Moschcowitz, E., hypoproteinemia, A., 971.  
 Moschini, A., equilibrium between various monosaccharides and insulin, A., 321.  
 Moschinski, G., influence of parathyroid hormone on blood-calcium, A., 539.  
 See also Bomskov, C.  
 Moscowitz, A., detergent, (P.), B., 29.  
 Moscowitz, M. See Ebert, C.  
 Mosel, H., acetic fermentation and oxidation of higher alcohols in sugar-free nutrients, A., 317.  
 Mosenthal, H. O., relation of sugar to cholesterol in blood, A., 82.  
 Moser, F., use of nitrate of soda on Indiana soils, B., 163. Calcium-magnesium ratio in soils and its relation to crop growth, B., 883.  
 Moser, F. R., treatment of benzines containing mercaptans with alkali and sulphur, B., 338.  
 Moser, H., digestibility of foodstuffs, A., 631.  
 Moser, H., automatic temperature regulation with a resistance thermometer, mirror galvanometer, and optical relay, A., 246.  
 Fröhlich, K. W., and Raub, E., electrodeposition of silver on basis metal containing phosphorus; electrolytic degreasing, B., 872.  
 Raub, E., and Stein, W., influence of foreign metals on the potentiometric silver titration, A., 1024.  
 Raub, E., and Vincke, E., system gold-manganese, A., 218.  
 Moser, H. A. See Roeser, W. F.  
 Moser, J. R. See Beckwith, T. D.  
 Moser, M., limits of error in works determination of Brinell hardness [of steel], B., 192.  
 Moses, F. G., Hess, R. W., Perkins, R. L., and Barrett Co., separation of minerals by flotation, (P.), B., 394.  
 Moses, H. E., taste and odour control on Pennsylvania water supplies, B., 942.  
 Mosettig, E., and Burger, A., phenanthrene series. III. Hydroxy-aldehydes and -ketones, A., 951.  
 and Kamp, J. van de, phenanthrene series. IV. Phenanthrene-2-, -3-, and -9-aldehydes. V. 9-Acetylphenanthrene; reduction products of 2-, 3-, and 9-acetylphenanthrenes. VI.  $\omega$ -Aminoacetylphenanthrenes and aminomethylphenanthrylcarbinols, A., 951, 1052.  
 Mosheim, D., industrial manganese poisoning; Parkinsonian-like condition, A., 312.  
 Mosher, H. H., simultaneous study of constituents of urine and sweat, A., 413.  
 Moshev, A. I., fractionation of polydisperse system [of soils] by centrifugal power, B., 242.  
 Moskovitz, B. See Kolthoff, I. M.  
 Mosley, R. A. See Neill, J. M.  
 Mosonyi, J., and Voith, L., action of the diuretic liver hormone, A., 1335.  
 Mosonyi, L., distribution of sugar in blood and permeability of red blood-corpuscles, A., 295.  
 Mosquera, L. See Calvet, F.  
 Moss, E. See Puxeddu, E.  
 Moss, E. B., and Cambridge Instrument Co., detection, measurement, and recording of solid particles [suspended] in non-solid [transparent] media, (P.), B., 816.  
 Moss, H. V., Schilb, T. W., and Warning, W. G., tricalcium phosphate as a caking inhibitor in salt and sugar, B., 304.  
 Mossini, A. See Mameli, E.  
 Mossman, W. G. See Ebersson, F.  
 Mossop, (Mrs.) J. E., photographs on aluminium, (P.), B., 206.  
 Mostny, H. See I. G. Farbenind.  
 Moszew, J. See Dziewoński, K.  
 Mote, J. H. See Spencer, H. M.  
 Moteki, K. See Kondō, S.  
 Mothes, K., vacuum infiltration in [plant] nutrition experiments; assimilation of ammonium, A., 649. Natural regulation of protein metabolism in plants, A., 1341.  
 Motoc, D. See Popescu, D. M.  
 Motor Improvements, Inc., and Liddell, R. P. F., filters, (P.), B., 370.  
 Mott, N. F. See Ellis, C. D., and Taylor, H. M.  
 Mott, R. A., coke formation. III. Swelling of single particles, B., 610. Characteristics of a satisfactory domestic coke, B., 771.  
 and Wheeler, R. V., improving the coking performance of weakly-caking coals, B., 900.  
 See also Allinson, J. P., Brewin, W., Burdakin, L., and Davies, R. G.  
 Mottern, H. H., and Loescke, H. W. von, de-aeration and flash-pasteurisation of orange- and grape-fruit juices, B., 937.  
 Nelson, E. M., and Walker, R., reducing value of plant-juices containing vitamin-C as determined by 2:6-dichlorophenolindophenol, A., 100.  
 See also Nelson, E. M.  
 Mottern, H. M. See Nelson, E. K.  
 Mottram, J. C., chromatic inclusions in the cytoplasm of cells after gamma radiation, and changes in the nucleolus, A., 634. Reaction in the skin occurring during latent period following X-radiation, A., 1079.

- Motzoc, (*Mlle.*) M. D. See Balanescu, G.  
 Mouchel & Partners, Ltd., L. G., and Gerard, M. E., [construction of hyperboloidal] water-cooling towers, (P.), B., 97.  
 Mougeot, A., and Aubertot, V., oxidation within the tissues and hot carbon dioxide baths, A., 977.  
 Mougey, H. C. and Gen. Motors Research Corp., cleaning of metal, (P.), B., 553.  
 Metal [steel]-cleaning composition, (P.), B., 972.  
 Moulin, M. See Fromageot, C.  
 Mounajed, T., conductivity of hydrogen chloride in anhydrous ether, A., 784.  
 Coefficient of volatility of hydrogen chloride in ether, A., 896.  
 Mounce, F. C. See Addoms, R. M.  
 Mount, W. D., dehydrator [for liquefied gases], (P.), B., 450.  
 Mouquin, H., and Natelson, S., equilibrium forces acting on free drops in irregular capillaries, A., 367.  
 Mourant, A. E., spherulitic rhyolites of Jersey, A., 141. Dehydration of thomsonite, A., 802.  
 Mouratoff See Boisselet.  
 Moureu, H. See Matignon, C.  
 Mourier-Malouf, G. See Maroger, J.  
 Mouriquand, G., Leulier, A., and Nogier, fixation of strontium in experimental rickets, A., 86.  
 Mourot, (*Mlle.*) G. See Amann, O. V., and Terroine, E. F.  
 Mousseron, M., and Cariteau, R., nickelohexanitrides, A., 40.  
 and Faouroux, P., zinc in fungi, A., 106.  
 and Gravier, P., double sulphate of aluminium and sodium, A., 229.  
 See also Godchot, M.  
 Moussn, treatment of coccidiosis in rabbits by injection of oil-thymol-carbon tetrachloride mixtures, A., 628.  
 Mowlds, K. S., Seguine, W., jun., and Krebs Pigment & Color Corp., manufacture of sunfast and inert lithopone, (P.), B., 799.  
 Moxer, F. R., Greutert, J., and Shell Development Co., treatment of petroleum acid sludges, (P.), B., 538.  
 Moyer, H. V. See Winter, P. K.  
 Moyer, W. W. See Wallis, E. S.  
 Moyle, C. L. See Smith, L. I.  
 Mozheiko, V. I., increase of the iron content of glass when cullet from the blow-pipe is used in the batch, B., 670.  
 Mozolowski, W., and Sobozuk, B., formation of ammonia and pyrophosphate decomposition in muscle. II., A., 1203.  
 Mrak, E. M., and Cruess, W. V., corrosion of nickel and monel metal by sulphured grape juice, B., 431.  
 See also Joslyn, M. A.  
 Mrazek, S. See Kemula, W.  
 Mrowka, B., diamagnetic susceptibility and refractivities according to wave mechanics, A., 340. Theoretical optics of the hydrogen molecule, A., 996.  
 Mrozek. See Bünger, H.  
 Mrozowski, S., collision phenomena on optical excitation of various mercury isotopes, A., 2. Emission life of the mercury resonance line at 2537 Å., A., 2.  
 Mrugowsky, J. See Schemensky, W.  
 Muck, O., biological detection of radioactivity of rocks, A., 1137.  
 Mudd, S., hypothetical mechanism of antibody production, A., 735.  
 and Joffe, E. W., modification of antibodies by formaldehyde, A., 966.  
 Mudrak, A., physiology of luminous bacteria, A., 1334.  
 Mudrović, M., fading of organic dyes, with special reference to photography, B., 652.  
 Mück, G. See Lang, R.  
 Mügge, H., determination of phosphorus fractions in muscle and of phosphagen in the warm-blooded heart, A., 1318.  
 Mügge, O., twin structure of amethyst quartz with reference to the temperature of origin, A., 45. Twinning of magmatic quartz with reference to its temperature of origin, A., 140.  
 Mühlbock, O., and Kaufmann, C., is the capacity to break down exogenous creatine a specific function of the sexually mature organism? A., 418. Determination of blood-fat, A., 1316.  
 Mühlendyck, W. See Bordo, J. A., and Mainz.  
 Muehler, L. E., and Eastman Kodak Co., photographic developer for use at high temperatures, (P.), B., 285.  
 Mühlmann, M., effect of age on metabolism, especially on sulphate excretion in urine, A., 418.  
 Müllenheim, S. von. See Adickes, F.  
 Müllensiefen, W. See Endell, K.  
 Müller, A. (Giessen). See Krollpeiffer, F.  
 Müller, Adolf. See Freytag, H.  
 Müller, Alex., X-ray investigation of normal paraffins near their m.p., A., 116. Carbon rings. XXI. Röntgen measurements with high-membered cyclic compounds, A., 267. Arrangement of chain molecules in liquid n-paraffins, A., 1107.  
 Müller, Alexander, and Robertson, A., natural glycosides. VI. Hexose residue of phloridzin, A., 1146.  
 and Vargha, L. von, partly acylated sugar alcohols. III. Products of the toluenesulphonation of mannitol  $\alpha$ -dibenzoate, A., 931.  
 Müller, Carl, determination of the constant  $\sigma$  of the Stefan-Boltzmann radiation law, A., 561. Preparation of thin, free metallic membranes, A., 587.  
 and Weithauer, A., dispersion of fused quartz in the short-wave infra-red, A., 1232.  
 Müller, Curt, recovery of benzine and benzol from industrial effluents by active carbon, B., 46.  
 Müller, D., separation from yeast of an alcohol-dehydrogenase, A., 892.  
 Mueller, D. W. See Smyth, H. D.  
 Müller, Erich, and Barchmann, H., influence of anions on electrolytic deposition and solution of cadmium and zinc, A., 681.  
 and Förster, J., influence of the anion on velocity of solution of zinc in acids, A., 130.  
 and Haase, G., potentiometric determination of chromic acid and iron in chromium-plating baths, B., 271.  
 and Janitzki, J., electromotive behaviour of nickel and cobalt, A., 128.  
 and Rossow, O., electrodeposition of chromium from aqueous chromic acid containing hydrofluoric acid, B., 67.  
 and Schwabe, K., fixation of hydrogen by highly-dispersed metals; synthesis of ammonia, A., 36. Limiting currents in the anodic polarisation of metals in aqueous solutions. II., A., 785.  
 Müller, Ernst (Heidelberg), and Luber, A., determination of [free mineral] acid in leather, B., 724.  
 Müller, Ernst (Marburg). See Kutscher, F.  
 Müller, Eugen (Danzig), and Disselhoff, H., action of sodium on aliphatic diazo-compounds, A., 1149.  
 and Hory, E., ultra-violet absorption spectra of azoxybenzenes. III., A., 112.  
 and Lindemann, E., [thermal decomposition of]  $\beta$ -phenylhydroxylamine, A., 1284.  
 See also Gehrckens, K. A.  
 Müller, Eugen (München), and Page, I. H., preparation of aliphatic cholesteryl ethers and cholesterolene, A., 820.  
 See also Jahnel, F.  
 Müller, Felix, and Kaldunee, O., operation of centrifugal machines, (P.), B., 208.  
 Müller, Fritz, and Phillips, R. O., methods for sampling [vegetable] tanning materials [for tannin analysis], B., 931.  
 Müller, G. See Esser, H.  
 Müller, G. (Stockholm), quantum theory of rotational dissociation of diatomic molecules, A., 112.  
 Müller, Georg. See Zipperer, L.  
 Müller, Geza. See Milone, M.  
 Müller, Gotthard, and Zetzmann, H. J., registering photo-cell pyrometer, A., 1264.  
 Müller, H. (Cottbus). See Rinck, A.  
 Müller, H. (Halle). See Necke, A.  
 Müller, H. (Marburg). See Auwers, K. von.  
 Müller, Hans (Lunz am See), application of 2:2'-dipyridyl to the determination of ferrous and total iron in natural waters, B., 366.  
 Müller, Hans (Massachusetts), Kerr effect in Rochelle salt, A., 342.  
 Müller, Herbert. See Schwarz, M. von.  
 Müller, Horst, dipole moment and solvent, A., 1103.  
 Müller, H. K., reducing property of aqueous humour, A., 1068.  
 Müller, J. A., constituents of northern mistletoe, *Viscum album*, L., A., 103.  
 Mueller, John Howard, Kleise, K. S., Porter, E. F., and Graybiel, A., cultural requirements of bacteria. III. *Diphtheria bacillus*, A., 866.  
 Müller, John Hughes, and La Lande, W. A., jun., precipitation of rhenium sulphide from ammoniacal solution; separation of rhenium and molybdenum, A., 799.  
 See also Simons, J. K.  
 Müller, Karl, and Sleumer, H., vine growth and soil reaction, B., 982.  
 Müller, Konrad. See Wohlenberg, W.  
 Müller, K. E. See Schroeder, R. H.  
 Müller, K. O., lubricants and their application in chemical works, B., 419.  
 Consolati, F., Frank, F., and Meyerheim, G., ageing of fresh and used transformer oils in relation to sludge formation, B., 819.  
 Müller, K. R., control of the root-fly with sodium fluoride, B., 518.  
 Müller, P., haemoglobin content of normal serum, A., 409.  
 Müller, R. (Innsbruck). See Henze, M., and Stöhr, R.  
 Müller, Robert, is methylglyoxal excreted in urine? A., 850.  
 Müller, Robert (Graz), and Brenneis, H., potentiometric titration of hydrogen peroxide and peroxides, A., 243.  
 Hahn, G., and Krainer, H., corrosion of iron, chromium, and nickel; resistant alloys of these and other metals, B., 349.

- Müller, Robert (Graz). See also Le Blanc, M.  
 Müller, Rudolf, and Hanel, R., austenitic cast-iron [alloy] as constructional material, B., 150.  
 Müller, W. See Schmidt, A. W.  
 Müller, W. J., theory of passivity. XVII. Comparison of E. Müller and Schwabe's new theory of passivity, and W. J. Müller's protective film theory with the experimental results of researches on passivity. XVIII. Fluctuation phenomena in anodic passivity, A., 30, 787. Kinetic investigation of passivity phenomena, A., 468. Theory of corrosion. I. Relation between passivity and corrodibility of metals, A., 576. Theory of the lead chamber reaction. I., A., 684. Technological classification of chemical reactions and its significance for the teaching of chemical technology, B., 815.  
 Forbes, D. M., and Fort, R., theory of the lead chamber reaction. II. Hydrolysis of nitrosylsulphuric acid, A., 241.  
 and Jandl, E., dependence of properties of coke on conditions of its production. I., B., 947.  
 and Löffler, G., colour of precipitated cadmium sulphide, A., 997.  
 Mueller, W. S., ageing effects on gelatin dispersions, B., 642.  
 Müller Akt.-Ges., C. H. F., measuring the absorption of small quantities of material by means of X-rays, (P.), B., 26. X-Ray installation, (P.), B., 73.  
 Müller-Lenhartz, W., and Wendt, G. von, minerals and vitamin in the nutrition of the hen, A., 90.  
 See also Wendt, G. von.  
 Müller-Parcham, W., lactic acid determination in blood, A., 966.  
 Muench, O. B., age of a Canadian cyrtolite, A., 691.  
 Münchberg, F., determination of residual nitrogen of milk, B., 522.  
 Mündelein, J., metabolism of tonic and non-tenic bird's muscle, A., 307.  
 Muencher, W. C., killing perennial weeds with chlorates during winter, B., 245.  
 Münster, W., micro-determination of iodine [in organic substances] and a micro-desiccator, A., 1260.  
 Münter, F., effects of soil reaction, B., 560.  
 Münz, F. See Gen. Aniline Works.  
 Münzberg, H. See Nolte, O.  
 Münzel, H. See I. G. Farbenind.  
 Münzinger, W. M., light-sensitivity of nitrocellulose films, B., 30.  
 Mugdan, M., and Sixt, J., determination of a small quantity of oxygen in gases, A., 243.  
 and Wimmer, J., determination of acetic acid, A., 375.  
 Muggleton, G. D., Brallier, P. S., Galder, H. C. van, Webber, R. F., and Niagara Smelting Corp., mineral chlorination [for production of aluminium chloride from clay], (P.), B., 703.  
 Mugrage, E. R. See Orten, J. M., and Underhill, F. A.  
 Muhlert, F., determination of ammonia by Ostwald's nitrometer method, B., 16.  
 Mullenburg, G. A., and Goldich, S. S., petrography and petrology of the Mount Devon diabase porphyry, A., 1137.  
 Muir, G. W. See Watson, C. J.  
 Muir, J., radioactivity of well waters from Dumfries, A., 588.  
 Muir, John, industrial applications of the ultra-violet radiation test. III. Lubricating oils and greases. IV. Chemicals and materials, B., 137, 272.  $p_H$  control by colorimetric methods, B., 426. Fluorescence comparisons in the examination of food, B., 1032.  
 Muir, J. J. See Bolam, T. R., and Brown, R. R. H.  
 Muir, W. See Kermack, W. O.  
 Mukerjee, B. See Deb, S. C.  
 Mukerjee, K. C., and Drane, H. D. H., sources of glass-making sands in India, B., 19.  
 Mukerji, B. L. See Dhar, N. R.  
 Mukherjee, G. C. See Sen, R. N.  
 Mukherjee, J., electrical properties of colloids. I. Explanation of activity and conductivity measurements in colloidal solutions. II. Specific behaviour of colloids as electrolytes. III. Discrepancies between activity and conductivity in colloid solutions, A., 460, 1116.  
 Ray-Chaudhury, S., Das-Gupta, S. K., Sen, A. K., Mazumdar, B., and Chatterjee, A., colloidal chemical analysis. II., A., 1116.  
 Ray-Chaudhury, S., and Majumdar, M., adsorption of electrolytes by activated charcoal, A., 773.  
 Ray-Chaudhury, S., and Rajkumar, S. G., variation of the electrical charge of colloidal particles. V. Effect of the manner of preparation of  $As_2S_3$  sol on cataphoresis in presence of electrolytes, A., 567.  
 Mukherjee, J. B. See Bhargava, S.  
 Mukhopadhyay, B. See Krishnan, K. S.  
 Mulder, A. G. See Amberson, W. R.  
 Mulder, H. See Backer, H. J.  
 Mull, J. W., and Bill, A. H., calcium and inorganic phosphorus content of prenatal and post-partum serum, A., 86.  
 Mull, W., removal of water from paper on felt-covered drying cylinders of paper machines, B., 223.  
 Mullian, E. P., production of negatives without photography, (P.), B., 78.  
 Mullen, E. J. See Gen. Chem. Co.  
 Mullenheim, S. von. See Pfeiffer, P.  
 Muller, E. See Schwarz, G.  
 Muller, F. M., assimilation of carbonic acid, A., 429. Metabolism of purple sulphur bacteria in organic media, A., 1207.  
 Muller, G. L., and Heath, C. W., cholesterol and lecithin-phosphorus in plasma of anaemia other than pernicious anaemia, A., 1069.  
 Muller, H., lowering of eutectic points: a ternary eutectic, A., 566. Lowering of eutectic point of system  $H_2O-KNO_3-NH_4Cl$ , A., 906.  
 Muller, J. A., and Peytral, (Miss) E., rapid pyrolysis of keten, A., 377.  
 Muller, J. F., base exchange in organic materials, B., 403.  
 Muller, P., utilisation of ultra-violet examination in perfumery, B., 284.  
 Muller, R., and Chem. Fabr. Pott & Co., preparation of water-soluble condensation products, (P.), B., 1000.  
 Muller, S. See Ges. für Teerverwertung m.h.H.  
 Muller, W. See Mohr, W.  
 Mulli, K., Pillewizer, T., and Laves, W., reaction between inhibitors of blood-coagulation and calcium ions in aqueous solution. I., A., 1182.  
 Mulli, K., and Standenath, F., alkaline-earth salts and their biological action, A., 186. Properties and biological action of complex salts of the alkaline earths, A., 423.  
 Mulliken, R. S., interpretation of the rotational structure of the  $CO_2$  emission bands, A., 6. Electronic energy levels of neutral and ionised oxygen, A., 202. Electronic structures of polyatomic molecules and valency. IV. Electronic states, quantum theory of the double linking, A., 339. Interpretation of the BeF bands, A., 444.  
 Multicolor, Ltd. See Fairall, H. K.  
 Multigraph Co. See Dietz, V.  
 Mulzer, P., and Schmalzuss, Hans, darkening of the skin. III., A., 968.  
 Mumbrauer, R., separation of traces of substances on precipitates during crystallisation, A., 221. Regularities in isomorphous separation of small amounts of substances with crystallising salts, A., 1009.  
 Mumford, C. W. See Tomhave, A. E.  
 Mumford, S. A. See Phillips, J. W. C.  
 Mumma, P. F. See Wright, E. C.  
 Munakata, E. See Kameyama, N.  
 Munch, J. C. See Krantz, J. C., jun.  
 Mund, W., and Capron, P. C., determination of the stopping power of gases for  $\alpha$ -particles of various speeds by the scintillation method, A., 762.  
 Munday, B., and Seibert, F. B., Shaffer-Hartmann and Hagedorn-Jensen methods in determining polysaccharide in tuberculin, A., 537.  
 See also Seibert, F. B.  
 Munemura, S., influence of electrolytes on mono- and pyro-phosphates, A., 981. Phosphatases and phosphatase haemolysis, A., 1202.  
 Munford, S. A. See Hubbard, R. S.  
 Munitex Corporation. See Stocker, E.  
 Munk, R. See Ulrich, F.  
 Munn, D. S., treatment of [real] silk and materials made therefrom [to prevent "laddering"] (P.), B., 144.  
 Muñoz, J. M., effect of anterior pituitary extract on blood-lipins, A., 754. Hourly and daily variations in the blood-cholesterol [of dogs], A., 1065.  
 Munro, A. C., and Seifert, R., determination of pepsin, B., 651.  
 Munro, H. E., and Marvel, C. S., rearrangements of poly-inenes. II. 3-Tetraphenyldiphenylethynylethane, A., 56.  
 Munro, J. M. H. See Aldred-Brown, G. R. P.  
 Munro, W. C. See Pease, R. N.  
 Munroe, T. B., Irvine, F. A., and Celotex Co., fibre derivative, (P.), B., 700.  
 Lathrop, E. C., and Celotex Co., preparation and preservation of [bagasse] fibre, (P.), B., 142.  
 See also Lathrop, E. C.  
 Munsell, H. E., and DeVaney, G. M., vitamin-B and G content of wheat germ, rice polishings, cottonseed flour, and residue from fermented rye grains, B., 810.  
 and Kifer, H. B., vitamin-B<sub>1</sub> and -B<sub>2</sub> contents of raw and cooked broccoli, B., 123.  
 See also Daniel, E. P.  
 Munson, L. See Beard, P. J.  
 Munteanu, N. See Nitescu, I. I.  
 Munthiu, O. B., action of saponin on plant cells, A., 875.



- Muntwyler, E., Way, C. T., Binns, D., and Myers, V. C., plasma-protein and plasma-colloid osmotic pressure in pathological conditions with special reference to the occurrence of oedema, A., 972.  
See also Myers, V. C.
- Murach, N. N. See Vanyukov, V. A.
- Murakami, K. See Nagai, Shōichirō.
- Murakami, M., eclampsia. V. Effect of placental antiserum on glycogen content of the placenta, A., 180. Constitution of fukugetin and garsinin, A., 398.
- Murakami, R., effect of monochromatic light on yeast fermentation, A., 751.
- Murakami, S. See Kuré, K.
- Murakami, T., and Hattai, A., equilibrium diagram of the antimony-manganese system, A., 771.  
and Mikami, Miwakichi, effect of carbon on hardness and transformation points of nickel-chromium steels, A., 119.
- Murakawa, K., hyperfine structure of spectra of sodium, mercury, and lead; origin of the intensity variation of hyperfine structure components, A., 107. Spectra of Pb II, Hg I, Sb I, Cl II, and I II, A., 656.
- Muraoka, H., and Hiruma, K., platinised glass electrode, A., 801.
- Muraour, H., theory of explosive reactions, A., 574. Effect of electronic bombardment on lead azide and silver acetylide; thermal decomposition of explosives, A., 915. Action of  $\alpha$ -rays from polonium, X-rays, and ultraviolet rays on nitrogen iodide and other explosives, A., 1020. Cause of progressive disappearance of diphenylamino in colloidal powders, B., 1085.  
and Aunis, G., law of combustion of mixtures of powders, A., 357. Influence of temperature of [explosive] powder on variation of  $fp/dt$  for different densities of loading, B., 173. Velocity of combustion of colloidal [explosive] powders at low temperature, B., 173. Temperature of explosion of nitroguanidine, B., 252. Laws of combustion of colloidal [explosive] powders, B., 365. Laws of combustion of nitrocellulose colloidal powders, B., 365. Speed of combustion of two colloidal powders of different composition but the same explosion temperature, B., 989.  
See also Michel-Levy, A., and Trillat, J. J.
- Murari, T., nutritive value of kolukkattai grass (*Pennisetum cenchroides*) dried artificially, B., 42.
- Murata, H. See Yoshimura, K.
- Murata, Kiichi. See Sato, M.
- Murata, Kuwaji, electrode potential of iron. III. Corrosion of iron in water in absence of oxygen and determination of solubility product of ferrous hydroxide, A., 128. Iron ions of iron equilibrium under pressure of hydrogen, A., 783.
- Murata, M., and Fujii, Masao, relation between amyloid degeneration and  $p_H$  of organs. II, A., 1321.  
and Kageyama, K., silicic acid content of organs involved in amyloid degeneration. II, A., 1321.  
See also Fukui, S., Iimuro, S., and Ueno, A.
- Muravieva, M. I., oxidation products of 2:4:6-trinitro-m-xylene, A., 157.
- Murayama, S. See Matsui, M.
- Murch, W. M., and Nat. Aniline & Chem. Co., flavanthrone, (P.), B., 222.
- Murchison, J. T. See Henze, H. R.
- Murdoch, P. G., and Barton, R. C., activity coefficients of hydrochloric acid in aqueous solutions containing either sodium dithionate or perchloric acid, A., 1245.
- Murdock, H. R., utilisation of the whole cotton plant as a source of cellulose for paper-making, B., 459. Penetration in alkaline pulping, B., 451.  
and Champion Fibre Co., extracting water-soluble substances [tanning agents] from raw fibrous materials containing the same, and simultaneously forming the fibrous materials into a web, (P.), B., 503.
- Muresanu, P. L. See Radulescu, D.
- Murex, Ltd., Smith, A. B., and Skelley, H. A., mixing of granular, powdered, or similar substances, (P.), B., 3.
- Murgatroyd, J. B., effect of age on strength of commercial glassware, B., 106.
- Murison, C. A. See Finch, G. I., and Thomson, G. P.
- Murlin, J. R., conversion of fat into carbohydrate in the germinating castor bean. I. Respiratory metabolism, A., 1341.  
See also Pierce, H. B.
- Murmann, H., optical constants of transparent silver, A., 332. Vacuum measurements by means of heated wires, A., 1266.
- Murneek, A. E., and Logan, J. C., autumnal migration of nitrogen and carbohydrates in the apple-tree with special reference to leaves, B., 164.
- Muro, Y., relationship between hormones and non-specific cell activity, with special reference to phagocytosis and endocrine organs, A., 319.
- Murooka, T. See Ishikawa, F.
- Murphy, A. F., Jones, W., and Amer. Rolling Mill Co., treating silicon steel, (P.), B., 633.
- Murphy, D. F., and Peet, C. H., insecticidal activity of aliphatic thiocyanates. II. Mealy bug, B., 647.
- Murphy, D. W. See Chipman, J.
- Murphy, E. A., [rubber] latex round thread; its manufacture and properties, B., 317.  
See also Dunlop Rubber Co.
- Murphy, E. J. See Allison, F.
- Murphy, J., and Bandon Milling & Electric Lighting Co., automatic kiln-drying apparatus, (P.), B., 992.
- Murphy, J. B., and Strum, E., properties of the causative agent of a chicken tumour. VII. Separation of the associated inhibitor from tumour extracts, A., 301. Effect of inhibiting factor from normal tissues on spontaneous tumours of mice, A., 971.
- Murray, A., and Eastman Kodak Co., drying of photographic plates or films, (P.), B., 93. Photomechanical reproduction from half tones or line negatives, (P.), B., 492.
- Murray, C. A., effect of feeding sunflower seed on quality of bacon, B., 249.
- Murray, D. G., and Chapman, F. E., occurrence of rubidium, caesium, and thallium in some Western Australian micas, A., 368.
- Murray, D. R. P., activation of papain by cyanide. I, A., 636.
- Murray, D. W. G., and Waters, E. T., effect of infection on the insulin content of the pancreas, A., 322.
- Murray, H. C. See Powell, S. G.
- Murray, H. D., analysis of mixtures of fats and waxes, B., 74. Diazo-compounds in photography, B., 413.  
and Ragusa Asphaltic Paving Co., binding composition, suitable for binding materials for roofs, flooring, etc., and covering preparations produced therefrom, (P.), B., 21.
- Murray, H. L. See Butler, O.
- Murray, I., and Robertson, A. B., significance and origin of lactic acid in the gastric contents, A., 84.
- Murray, J. A., experimental production of malignant tumours, A., 970. Quality factor in feeding-stuffs, B., 570.
- Murray, J. T., Short, W. F., and Stansfield, R., alleged formation of aliphatic ketonitrils, A., 956.
- Murray, J. W. See Seabury, R. L.
- Murray, R. C., and Economics Laboratory, Inc., sodium resinate [rosinate], (P.), B., 677.
- Murray, Roger C., hexadecanesulphonic acid, A., 933.
- Murray, T. F., jun., Staud, C. J., and Eastman Kodak Co., cellulosic compositions of matter containing ethyl cyclopentanonecarboxylate, or benzyl-aniline, (P.), B., 825.  
See also Kodak, Ltd.
- Murray, W. S., and Oneida Community, Ltd., obtaining indium and zinc from ores [e.g., blende], (P.), B., 112.
- Murrell, F. C. See Wesson, L. G.
- Murrell, H. See Cartwright, H. M.
- Murrill, P. I., and Vanderbilt Co., R. T., [stabilisation of] mineral oil [or grease] compositions, (P.), B., 181.
- Mursch, J., and Gatti, J., production of mouldable, or sheeted, compounds, (P.), B., 514.
- Murschhauser, H. See Schlossmann, A.
- Murto, J. O., origin of cymene in sulphite [cellulose] liquor, B., 299.  
See also Routala, O.
- Murty, K. See Gopala, S.
- Musajo, L., benzylidenepyruvic acid. II, A., 64.  
See also Ciusa, R., and Colonna, M.
- Muschter, F. J. F. See Katz, J. R.
- Musgrave, F. F., and Hinshelwood, C. N., interaction of carbon monoxide and nitric oxide, A., 233.  
and Moelwyn-Hughes, E. A., kinetics of the oxidation of picric acid by potassium permanganate in aqueous solution, A., 1250.
- Musher, S. See Taube, G.
- Musierowicz, A., adsorptive properties of moorland soils, B., 1024.  
See also Zolcinski, J.
- Muskat, I. E., and Grimsley, L. B., conjugated systems. XII. Addition of bromine, hydrogen bromide, and hypobromous acid to  $\alpha$ -bromobutadiene. XIII. Preparation and properties of  $\alpha$ -bromo- $\delta$ -phenylbutadiene. XIV. Preparation and properties of  $\delta$ -amino- and  $\delta$ -anilino- $\alpha$ -phenylbutadiene, A., 694, 1041, 1284.
- Muskat, M., extrapolation of atomic structure factor curves, A., 206.  
and Hutchisson, E., quantum mechanics of lithium hydride, A., 1225.  
See also Wyckoff, R. D.

- Muskett, A. E., and Cairns, H., effect of seed disinfection on oat crop in Northern Ireland, B., 118.
- Mussack, A., effect of manuring with blood on the colour of flowers of *Primula auricula*, A., 103.
- Mussehl, F. E., and Ackerson, C. W., antirachitic value of sardine oil for growing chicks, A., 542.
- Blish, M. U., and Ackerson, C. W., effect of dietary and environmental factors on  $p_{H}$  of intestinal tract, A., 974.
- Musser, R. See Carr, C. J.
- Mussill, J., destruction of citric acid in milk by bacteria, A., 626.
- Musso, A., and Deppe, W. P., retort furnaces [for production of sponge iron], (P.), B., 233.
- Mustard, J. W., chloroamine treatment [of water] at the Chatham [Ont.] filtration plant, B., 606.
- Muta, K., acetone and butyl alcohol fermentation of cane molasses. I. *Bacillus butyligenus*, A., 867.
- Mutersbaugh, G. H., Zucker, M., Heiser, H. D., Shope, W. A., and Glidden Co., ["flat"] nitrocellulose lacquer, (P.), B., 316.
- Mutton Hollow Fire Brick Co. See Ryan, J. F.
- Mutzenbecher, P. von, serum-albumin and heparin, A., 624.
- and Svedberg, T., analysis of serum with the ultra-centrifuge, A., 623.
- Muz, L. See Dziewonski, K.
- Muzuichenko, A. P. See Vlasenko, B. E.
- Mydans, W. E. See Kohler, E. P.
- Myddleton, W. W., [nickel] catalysts [for oil hardening, etc.], (P.), B., 866.
- Myer, J. L., proposed method for determining oxidation temperature of anthracite, B., 993.
- Myers, C. N., Throne, B., Gustafson, F., and Kingsbury, J., significance and danger of spray residue, B., 646.
- Myers, E. M., preparation of coal, B., 337.
- Myers, L. D. See Peirce, J. O.
- Myers, P. B., and Baker, G. L., extraction of pectin from peptic materials, (P.), B., 764.
- Myers, R. D., apparatus for drying hexachloroethane, (P.), B., 855.
- Myers, R. G., determination of organic matter in accumulator sulphuric acid solutions, B., 313.
- Myers, R. P., and Johnson, A. H., determination of bactericidal properties of chemical sterilisers, A., 641.
- and Nat. Dairy Products Corp., Inc., Res. Labs., unfermented acidophilus milk, (P.), B., 987. Unfermented milk product, (P.), B., 987.
- Myers, V. C., Muntwyler, E., Binns, D., and Danielson, W. H., colorimetric determination of  $p_{H}$  of the blood, A., 1181.
- and Reid, E., animal diastases. III. Comparison of different methods of blood-diastase determination. IV. Effect of insulin on blood-diastase in diabetes, A., 302.
- See also Eveleth, M. W., Muntwyler, E., and Reid, E.
- Myers, W. K., and Taylor, F. H. L., hypoproteinemia probably due to deficient formation of plasma-proteins, A., 1322.
- Myhrman, G., influence of thyroxine on tissue oxidation, A., 430, 642, 754.
- Mylius, Werner, rapid determination of boric acid in arsenic-free borosilicates, A., 363.
- Mylius, Wilhelm. See Ekwall, P.
- Mylon Corporation. See Milson, J. R.
- Myrbäck, K., cozymase and phosphatase, A., 863. Cozymase of yeast, A., 1082.
- Euler, H. von, and Hellstrom, H., yeast cozymase, A., 428, 915.
- and Larsson, H., method of action of Euler's Z-factor, A., 428.
- and Myrbäck, S., amylases of malt and barley, A., 187, 425. Fractionation of proteins of malt extracts. II., B., 487.
- See also Euler, H. von.
- Myrbäck, S. See Myrbäck, K.
- Mystkowski, E. M., and Landau, M., action of amylase, A., 749.
- See also Przylecki, S. J. von.
- N.
- N. P. Development Syndicate, Ltd., and Beresford, H. L., composition for use as plaster and manufacture thereof for building and other purposes, (P.), B., 789.
- Naab, H. See Hüchel, W.
- Naamlooze Vennootschap Bataafsche Petroleum Maatschappij. See under Bataafsche Petroleum Maatschappij.
- N. V. Handelsmaatschappij "Baver," black and coloured printers' inks, (P.), B., 399.
- N. V. Histoxyl Maatschappij "Histoma," artificial moulded materials from cellulose materials and binders, (P.), B., 31.
- N. V. Maatschappij tot Beheer en Exploitatie van Octrooien, fibres or threads from glass, slag, and similar meltable materials, (P.), B., 190. Sheet glass, (P.), B., 347.
- and Vello, L. S., glass tubes and similar products, (P.), B., 20, 62.
- N. V. Maats. tot Exploitatie van "ten Bosch Octrooien N. V.," removal of gases from materials containing many capillary spaces, (P.), B., 177.
- N. V. Maats. tot Exploit. van Limburgsche Steenkolenmijnen, genaamd Oranje-Nassau Mijnen, [production of] combustible briquettes [having curved lateral surfaces], (P.), B., 580.
- N. V. Maats. tot Exploit. der Vereenigde Oliefabr. "Zwijndrecht," recovery of pale fatty acids from cottonseed black grease and other acid oils, (P.), B., 555.
- N. V. Maats. voor Keramische en Chemische Industrie "Kero-Chemica," heating of [horizontal] retorts, (P.), B., 175.
- N. V. Machinefabriek Gebrüder Stork & Co., rotary drying apparatus, (P.), B., 2.
- Vacuum pans for boiling concentrated sugar juices and syrups, (P.), B., 486.
- N. V. Machinefabriek "Reineveld," horizontal centrifugal, (P.), B., 656.
- N. V. Machineleen- en Apparaten-Fabrieken, transferring liquefied gases from one vessel or container to another, (P.), B., 993.
- N. V. Molybdenum Co., [carbide] material for tool or tool parts, (P.), B., 794.
- N. V. Noury & van der Lande's Handelsmaats. See Lee, G. van der.
- N. V. "Oliefabriek Alkmaar." See Loesch, C. F.
- N. V. Philips' Gloeilampenfabrieken, [degassing cathodes of] electron-discharge tubes, (P.), B., 25. Electrolytic condensers and rectifiers, (P.), B., 26. Capless electric incandescence lamps or discharge tubes, (P.), B., 27. [Cathode for] thermionic valves or electron-discharge tubes, (P.), B., 72. Electric-discharge tubes, (P.), B., 72. Thermionic valves or electron-discharge tubes [with indirectly heated cathodes], (P.), B., 73. Electrode systems for electrolytic condensers and rectifiers, (P.), B., 113. Preparation of vitamin-D, (P.), B., 205. Electric-discharge tubes for emission of luminous rays, (P.), B., 236. Electron-discharge tubes or thermionic valves, (P.), B., 236. Gas-filled electron-discharge tubes, (P.), B., 353. Photographic printing by ultra-violet light, (P.), B., 572. Obtaining photographic contrasts by means of diazonium compounds, (P.), B., 845. Artificial resin from resite masses containing a cellulose filling material, (P.), B., 929. Winning of highly refractory carbides [on wires, etc.], (P.), B., 972.
- N. V. W. A. Scholten's Chemische Fabrik, preparation of thickened solutions for the printing of textile fabrics, (P.), B., 545.
- N. V. Solopol, Ingenieurs Bureau tot Exploitatie van het Systeem Polysius. See Polysius A.-G., G.
- N. V. Splendor Gloeilampenfabriek Splendor Lampworks. See Winter, E.
- N. V. Stikstofbindingsindustrie "Nederland," and Rusting, N., alkali cyanates, (P.), B., 1055.
- N. V. Teerproductenindustrie Touwen & Co., preparation of varnishes and paints, (P.), B., 276.
- Nabar, G. M. See Desai, B. N.
- Nabar, M. V., and Prasad, M., effect of sugars on inhibition of precipitation of ceric hydroxide from a solution of ceric ammonium nitrate, A., 461. Kinetics of coagulation of ceric hydroxide sol, A., 787.
- See also Prasad, M.
- Nabilkova, E. N., determination of Ca and Mg in presence of  $NH_4Cl$  and  $NaCl$ , A., 922.
- Nachtigall, G., use of lead and copper tubes for drinking-water pipes, B., 126.
- Nachtnebel, E., pigment deposits in intestinal muscle coats and their relation to diet factors, A., 974.
- Nacken, R., ways in which water is combined in cement, B., 468.
- Nadel, A. See Damour, E.
- Nadler, E. See Späth, E.
- Nadson, G. A., and Stern, C. A., action of metals on bacteria at a distance, A., 1208.
- Naegeli, C., and Kaltman, H., analysis of hair dyes. I. Mol. compounds of polyhydric phenols with aromatic diamines used as hair dyes, A., 1285.
- and Tyabji, A., modified Curtius degradation. VII. Degradation of aromatic acids, A., 602.
- Naegeli, T. See Meythaler, F.
- Naeser, C. R., and Hopkins, B. S., micro-absorption spectra, A., 1134.
- Naeshagen, E. See Hassel, O.

- Nagai, *Shigeru*, adrenal phosphate during B-avitaminosis, A., 432. Muscle-phosphate during B-avitaminosis, A., 432. Glutathione and B-avitaminosis, A., 433. Co-enzyme content of the adrenals of fowls during B-avitaminosis, A., 433. Phosphatase and phosphatase action during B-avitaminosis, A., 433.
- Nagai, *Shōichirō*, hydrothermal synthesis of calcium silicates under ordinary pressure. VI., A., 37. Hydrothermal synthesis of calcium hydro-aluminates. I., A., 133. Hydrothermal synthesis of calcium silicates under pressure. III., A., 916.
- and Murakami, K., synthesis of calcium silicates. V.—VII., A., 793, 916, 1020.
- Nagai, T., gravimetric determination of nickel at various  $p_H$  values with dimethylglyoxime, A., 246.
- Nagai, W. See Freudenberg, K.
- Nagai, Y. See Maki, Toshi.
- Nagano, M. See Sobue, H.
- Nagaoka, H., and Futagami, T., laboratory excitation of nebular lines  $N_1$  and  $N_2$ , A., 655.
- Futagami, T., and Machida, I., change of wave-length and intensity in iron, nickel, and titanium lines by disruptive discharge, A., 2.
- Nagaomote, S. See Araki, T.
- Nagel, R. See Hesse, E.
- Nagel, R. E., and Universal Oil Products Co., dephlegmator, (P.), B., 770.
- Nagel, R. H. See Groggins, P. H.
- Nagel, W., extraction of definite resin constituents, B., 928.
- and Baumann, E., comparative studies of the hardening process for shellac and phenol-formaldehyde resins, B., 30.
- and Hiller, W., synthesis [of compounds] related structurally to shellac and acaroid resins, A., 503.
- Nagelschmidt, G. See Correns, C. W.
- Nagle, W. M., mean temperature differences in multipass heat exchangers, B., 607.
- Nagy, A. von, testing of insulating materials containing rubber, B., 357.
- Nagy, L., and Dickmann, A., volumetric determination of very small amounts of nicotine, A., 1064.
- Naherniac, A., the OH band of phenol in the near infra-red, A., 113.
- See also Freymann, R.
- Nahmias, M. E., quantitative crystal analysis by X-rays, A., 44, 665. Physical chemistry of alumina-silicon refractories. III. Bauxites and mullites, A., 1235. X-Ray examination of bauxites and mullites, A., 892.
- Nahum, L. H. See Himwich, H. E.
- Naidis, J. G. See Losev, K. I.
- Naik, K. G., and Patel, R. P., mercuration of compounds containing a reactive  $(CH_2)$  group by means of mercuric chloride. II., A., 266.
- and Thosar, V. B., interaction between thionyl chloride and substances containing the reactive methylene group. IV., A., 154.
- Naik, Y. G. See Paranjpe, G. R.
- Nair, A. P. M. See Chakravarti, S.
- Nair, J. H., and Mook, D. E., viscosity of fluid cream, B., 489.
- Najman, F. V. See Teletov, I. S.
- Nakadate, N., effect of irradiation on the excretion of zinc, A., 1200.
- Nakagawa, S. See Kikuchi, S.
- Nakahara, W. See Inukai, F.
- Nakai, T., and Fukami, Y., X-ray examination of ceramic raw materials. II.—IV., A., 929, 1235. X-Ray analysis of Seger cones, B., 749. X-Ray examination of ceramic materials, B., 786.
- Nakai, Y. See Iwatsuru, R.
- Nakajima, K., proteins and oil of the soya bean, B., 675.
- Nakamoto, M., refractories. VII. Determination of water absorption, B., 268.
- Nakamura, F. I. See Babcock, S. H., jun.
- Nakamura, Harukiti, Ohta, T., and Hukuti, G., constituent of santonin-free worm seed, A., 651.
- Nakamura, Hirozi, experimental anaemia by artificial diets rendered free from iron, A., 180. Tissue respiration and its relation to morphological changes, oxidase reaction, and  $p_H$  in tissues, A., 741.
- See also Katsunuma, S.
- Nakamura, Kazumoto, refining of wood pulp, B., 299. Digestion of wood. I. Influence of period of digestion on strength of sulphite pulp, B., 501. Purification of unbleached wood pulp, B., 742.
- and Ichijo, K., digestion of wood. II. Effect of cooking on  $\alpha$ -cellulose content, bleachableness, and viscosity of pulp, B., 859.
- Nakamura, Kiyosi, high-frequency properties of dielectrics. I. Anomalous variation of capacity and resistance of quartz with temperature and frequency. I., A., 1230.
- See also Saegusa, H.
- Nakamura, Mitsuo, antioxidants of fats and oils. VII. Action of terpene hydrocarbon, alcohols, aldehydes, ketones, acids, and phenol derivatives on oxidation of semi-drying oil. VIII. Action of the same compounds on oxidation of non-drying oil. IX. Inversion of oxidative catalyst due to species of fatty oils. X. and XI. Inversion of oxidative catalyst due to species of fatty oils. XII. Action of  $\beta$ -naphthol on oxidation of soya-bean oil, B., 637, 796.
- Nakamura, Morio, and Suzuki, Kentaro, relation between degenerative changes and tissue respiration; various toxins, A., 741. Inorganic poisons and ligation of the excretory duct, A., 741.
- See also Suzuki, Kentaro.
- Nakamura, T., Eda, S., and Ushio, H., bleach liquor and use of liquid chlorine, B., 58.
- Nakanishi, H., cholesterol content of the milk of various animal species, A., 300.
- Nakanishi, K., effect of gases on the properties of glass. I.—IV., B., 428, 749, 786.
- Nakashima, I., and Oinuma, S., bleaching of wood pulp, B., 602.
- Nakashima, M., and Hayashi, Katsuzo, oxidation-reduction potential of retina, A., 973.
- Nakashima, S., chemical composition of cerumen, A., 624.
- Nakashima, T., and Negishi, M., viscosity of cellulose in cuprammonium solution. I. and II., B., 13. Wood pulp and its raw materials. I. General. II. Acetylation of cellulose pulp. III. Chlorination of mulberry, B., 299.
- Nakashima, T., and Saotome, S., viscosity variations in viscous solutions; influence of electrolyte, B., 186.
- See also Negishi, M.
- Nakatsuchi, A., sulphur compounds of terpenes. V. Action of sulphur on various types of monoterpene hydrocarbons, A., 830. Non-metallic constituents of bright-gold [lustre]. I. and II., B., 755, 1018.
- Nakatsuka, Y. See Pfeiffer, P.
- Nakaya, S. See Lynn, E. V.
- Nakaya, T. See Kuré, K.
- Nakayama, A. See Hayashi, Mosuke.
- Nakazawa, F. See Saito, H.
- Nakazawa, R., molasses-fermenting yeasts; *Saccharomyces formosensis*, nov. sp., A., 1082.
- Takeda, Y., and Ashikaga, M., relation between alcohol fermentation, yeasts, and fermentation temperature. III., A., 1082.
- Nakhmanovitch, M. I., Berman, S. L., Plachotnik, M. S., and Pletnik, J. J., oxidation of sucrose by oxygen in presence of lime, B., 886.
- Nalbandian, A. See Semenov, N.
- Nalimov, V. V. See Timofeev, P. V.
- Nametkin, S. S., and Abakumovskaja, L. N., action of concentrated sulphuric acid on cyclohexene, A., 152. New type of reaction between unsaturated hydrocarbons and sulphuric acid. I. cyclo-Hexene and sulphuric acid, A., 385.
- and Brüssov, L., derivatives of 4-methylcamphor in relation to its structure, A., 70.
- and Kitschkin, A., phenylcamphor and its derivatives. II. 4-p-Nitrophenylcamphor and 4-p-aminophenylcamphor, A., 397.
- and Nifontova, S. S., structure of hydrocarbons of petroleum paraffin wax, B., 692.
- Sanin, P. I., Makover, S. V., and Tzyba, A. N., desulphuration of shale-tar benzines by hydrogenation in presence of sulphur-containing catalysts, B., 773.
- and Schavargin, A. I., tert-propylbornyl alcohol and its transformations, A., 510. Homologues in the camphor group. VIII. tert-Propylborneol and its reactions, A., 718.
- Namikawa, T., complete gasification of coal. I. Effect of heating rate on the carbonisation. II. Reactivity of coke towards carbon dioxide, B., 737.
- Namiki, S., cholesterol content of fish muscle, A., 1183.
- Nancarrow, H. A. See Lees, C. H.
- Nandi, B. L. See Kon, G. A. R.
- Nanfeldt, W., and World Bestos Corp., friction fabric, (P.), B., 460.
- Nanji, H. R., preparation of galacturonic acid from plant materials and its derivatives, A., 1036.
- See also Buston, H. W.
- Naoum, P. See Du Pont de Nemours & Co., E. I.
- Napel, K., solvents for combined oil-cellulose lacquers, B., 436.
- Naphtali, M., new type of shatter-proof glass, B., 106.
- Napier, J. W., and Newton, Chambers & Co., drying of fuel gases, (P.), B., 258.
- Narang, K. S. See Ghose, T. P.
- Náray-Szabó, S. von, and Szabó, Z., electrochemistry of complex cuprous-halogen anions, A., 1118. Recovery of iodine from residues, A., 1259.

- Narayan, V. L. See Joshi, Shridhar S.
- Narayana, N. See Niyogi, S. P., and Rao, Y. V. S.
- Narliker, V. V., degrees of freedom and the constant  $M/m$ , A., 660.
- Naruse, T., frosting the inner surface of a glass bulb, (P.), B., 628.
- Nasch, L., inhibition of alcoholic precipitation of proteins by alkalis, A., 226.
- Nash, A. W. See Bowen, A. R., and Hunter, T. G.
- Nash, T. P., jun. See Williams, Edward F., jun.
- Nash, W. G. See Black, J. G.
- Nasini, A. G. See Levi, M. G.
- Nasledov, D. N., and Nemenov, L. M., existence of an inner photo-effect in cuprous oxide, A., 447. Inner photo-electric effect in cuprous oxide, A., 554. Photo-electric effect in the contact layer under the action of ultra-violet light, A., 999.
- Nemenov, L. M., and Sharavski, P. V., internal photo-electric effect in amorphous substances, A., 999.
- See also Joffé, A.
- Nastaskina, E. See Grigoriev, P.
- Nasu, N., f.p. curves of binary mixtures:  $\text{TiCl}_4\text{-SiCl}_4$ ,  $\text{TiCl}_4\text{-CCl}_4$ ,  $\text{TiCl}_4\text{-SnCl}_4$ , and  $\text{TiCl}_4\text{-SbCl}_5$ , A., 1012.
- See also Iwasé, K.
- Natelson, S. See Mouquin, H., and Niederl, J. B.
- Nath, B. V., plant nutrition, A., 101. Organic manures versus artificial fertilisers, B., 36.
- Nath, M. C. See Basu, K. P.
- Nathan, W. S., and Watson, H. B., prototropic changes in carbonyl compounds. III. Prototropy of nuclear-substituted acetophenones. V. Relationship between polar characters of substituent groups and activation energies of proton addition, A., 505, 890. Influence of nuclear substituents on side-chain reactions. I., A., 1124.
- Natier, E. See De Ferrière, J. F.
- National Adhesives Corporation, and Fuller, A. D., modified starches, dextrins, and British gums, (P.), B., 247.
- Nat. Aluminate Corporation. See Wayne, T. B.
- Nat. Aniline & Chemical Co. See Bailey, G. C., Daniels, L. C., Dewey, C. S., Foster, H. B., Grob, A. R., Helfaer, B. M., Heritage, C. C., Jewett, J. E., Kyrides, L. P., Leaper, J. M. F., Lyford, C. A., Masterson, T. L., Minnis, W., Moorhouse, W. R., Murch, W. M., Payne, R. B., Perkins, R. L., Pietzsch, K. F., Punnett, E. B., Punnett, E. L., Spalding, W. J., Stowell, H. T., Wait, J. F., Wendler, A. F., Wood, R. O., and Zwilmeyer, F.
- Nat. Carbon Co., Inc. See Chaney, N. K., Dorcas, M. J., Heise, G. W., and Orne, S. W.
- Nat. Chemical & Manufacturing Co., Inc. See Tanner, W. L.
- Nat. Dairy Products Corporation, Inc., Research Laboratories. See Myers, R. P.
- Nat. Electric Heating Co., Inc., heat treatment of comminuted material, (P.), B., 896.
- Nat. Foods, Ltd. See McGroarty, W. J.
- Nat. Lead Co. See Corson, M. G., Iliff, J. W., and Newnam, W. E.
- Nat. Lime Association. See Underwood, J. E.
- Nat. Pigments & Chemical Co. See Harth, P. E.
- Nat. Smelting Co., and Bonsack, W., [refining the grain size of] aluminium and aluminium-base alloys, (P.), B., 236.
- Nat. Synthetic Corporation. See Forrest, H. O.
- Nat. Wood Products Co. See Nielsen, H. O.
- Natta, G., structure and polymorphism of the hydrogen halides, A., 1003. Manufacture of formaldehyde by catalytic oxidation and dehydrogenation of methyl alcohol. I., B., 100.
- and Baccaredda, M., antimony tetroxide and antimonates, A., 692. Properties, constitution, and analysis of ternary mixtures: water-methyl alcohol-formaldehyde, B., 821.
- and Pirani, R., solid solutions [obtained] by precipitation and isomorphism between complexes of platinum and of quadrivalent tellurium. II. Cesium chlorotellurite and the systems  $\text{Cs}_2\text{PtCl}_6\text{-Cs}_2\text{TeCl}_6$  and  $\text{Rb}_2\text{PtCl}_6\text{-Cs}_2\text{PtCl}_6$ , A., 18.
- and Strada, M., manufacture of formaldehyde by catalytic oxidation and dehydrogenation of methyl alcohol. II., B., 100.
- and Vecchia, O., structure and polymorphism of silver cyanide, A., 1004.
- Natural Gas Hydrogen Corporation. See Yunker, J. A.
- Naude, S. M. See Newbery, E.
- Naudet, L., rapid and slow diffusions [in beet-sugar factories], B., 279.
- Naugatuck Chemical Co., and Cadwell, S. M., treatment of rubber [in vulcanisation], (P.), B., 116.
- and Fisher, H. L., vulcanisation of rubber, (P.), B., 481.
- Holmberg, A. W., and Rice, P. E., methods of thickening [rubber] latex, (P.), B., 357.
- and Messer, W. E., 2-mercapto-[2-thiol] arylthiazoles, (P.), B., 341.
- Smith, O. H., and Jargstorff, G. W., styrene, (P.), B., 297.
- and Tuley, W. F., vulcanisation of rubber, etc., (P.), B., 319.
- See also Cadwell, S. M., Coleman, C., Gerke, R. H., Horst, W. P. ter, Howland, L. H., McGavack, J., Nitkin, A. A., Ostromisslenski, I., Seaman, R. G., and Watkins, P. H.
- Naugle, J. J., apparatus for heating and treating subdivided carbonaceous material, etc., (P.), B., 419. Treatment of liquids [containing adsorbable material], (P.), B., 449.
- See also Ehrhart, E. N., and Wadsworth, D. V.
- Nauman, J. L. See Cuthbertson, J. B.
- Naumann, E., determination of small amounts of aluminium, particularly in water, B., 494.
- Naumann, F. See Hengstenberg, O.
- Naumann, H. N., optical activity of blood-filtrates. II. Effect of acidity and the relation between rotation and reduction values, A., 295.
- Naumann, K. See Wöhlbier, W.
- Naumov, V. A., concentration of Djezkazgan copper oxide ores, B., 308.
- Naunton, W. J. S. See Imperial Chem. Industries.
- Nauss, formation of impurities in town's gas and their effect on the distribution system, B., 49.
- Naves, Y. R., analysis of sweet orange oil and lemon oil. I. Determination of aldehyde. II. Mechanism and measurement of variability of the oils, B., 525.
- See also Glichitch, L. S.
- Navez, A. E., growth-promoting substance and illumination, A., 987.
- Nawrath, K. See Hesse, E.
- Nayar, M. R., supersaturation and crystallisation by the dilation method, A., 221.
- Nayar, P. G. N., Rao, V. V., and Dasanacharya, B., improved form of mercury distiller, A., 1135.
- Naylor, C. A., and Wheeler, R. V., ignition of gases. VIII. Ignition by a heated surface: (a) mixtures of ethane, propane, or butane with air; (b) mixtures of ethylene, propylene, or butylene with air, A., 1123.
- Nazarevich, S., Kryanovski, L., Byvel, G., and Gurovich, Y., volynites, B., 669.
- Nazarow, J. N. See Favorski, A. E.
- Neal, A. M. See Du Pont de Nemours & Co., E. I.
- Neal, D. C., Wester, R. E., and Gunn, K. C., growth of the cotton root-rot fungus in synthetic media, and toxic effect of ammonia on the fungus, B., 934.
- Neal, O. R. See Smith, F. B.
- Neal, W. M., and Becker, R. B., haemoglobin content of blood of healthy and anæmic "salt-sick" cattle, A., 738. Composition of foodstuffs in relation to nutritional anæmia in cattle, A., 1188. Ensiling soya beans, B., 644.
- See also Arnold, P. T. D.
- Neale, A. E. T. See Dunlop Rubber Co.
- Neale, S. M., modification of natural cotton cellulose by swelling and by degradation, B., 298. Quantitative description of dyeing properties of direct cotton dyestuffs, B., 383. Behaviour of direct cotton dyes [in dyeing], B., 744.
- and Stringfellow, W. A., absorption of barium hydroxide, sodium hydroxide, and water by cellulose, from aqueous barium hydroxide and from mixed solutions, A., 457. Absorption of dyes by cellulose. I. Kinetics of the absorption of sky-blue FF on viscose sheet, in presence of various amounts of sodium chloride, A., 1241. Shrinkage of cotton yarn and viscosity of its solutions in aqueous caustic soda-cuprammonium hydroxide, B., 55. Absorption of direct dyestuffs by cellulose, B., 744.
- Near, C. See Sullivan, B.
- Nebovidský, and Horel, J., Czechoslovakian hop oil and its practical use, B., 927.
- Necke, A., and Müller, H., microchemical determination of lead in organic material [urine], A., 423.
- See also Weyrauch, F.
- Nedelmann, H. See Broche, H.
- Nedelsky, L., radiation from slow electrons, A., 202.
- Nederlandsche Electrolyt Maatschappij (Lightning Mij.) N. V., [filling liquid for] electric accumulators, (P.), B., 512.
- Needham, D. M. See Baldwin, E.
- Needham, J., manometric analysis of metabolism in avian ontogenesis. I. Normal respiratory quotient of blastoderm, embryo, and yolk-sac during first week of development. II. Effects of fluoride, iodoacetate, and other reagents on respiration of blastoderm, embryo, and yolk-sac. III. Respiratory quotient of the yolk-sac and allantois during the last two weeks of development, A., 87, 1073. Oxygen consumption by acidified tissues, A., 1324.

- Needham, R. E. See Porter, P. W.
- Neeland, G. K. See Davis, R.
- Neeley, A. See Huston, R. C.
- Neeley, G. S., and Watkins, G., prevention of scaling, corrosion, or similar action in metallic bodies, (P.), B., 834.
- Neelmeier, W. See Gen. Aniline Works.
- Nees, A. R., sugar beets; relation of inorganic constituents to sugar content and purity, B., 485.  
See also Brown, R. J.
- Nefedova, T. D. See Koslov, V. V.
- Neff, H. See Gossner, B.
- Negelein, E. See Warburg, O.
- Negishi, M., and Nakashima, T., viscosity of cuprammonium cellulose solutions. III., A., 779.  
See also Nakashima, T.
- Negrão, A. S., physiological identification of strychnine in forensic toxicology, A., 1198.
- Negreev, V., corrosion of petroleum pipelines and its prevention, B., 850.
- Neher A.-G., R. F., manufacture of Verdol papers [for loom-weaving of patterns and designs], (P.), B., 911.
- Nehl, F., red-shortness of copper steels and its prevention, B., 870.
- Nehring, K., influence of soil reaction on intake of various nutrients [by plants], B., 599.  
and Keller, A., adsorption of various ammonium compounds in soils, A., 564.
- Zielstorff, W., and Schmidt, W., effect of various iodine treatments on yield, composition, and digestibility of meadow grass, B., 163.  
See also Zielstorff, W.
- Neidich, S. A., and Sylvania Industrial Corp., viscose-treating apparatus, (P.), B., 746.
- Neiger, R. See Starkenstein, E.
- Neighbors, C. C. See Western Electric Co.
- Neiley, S. B., and Dewey & Almy Chem. Co., coagulation of [rubber] latex, (P.), B., 930.
- Neill, J. M., Gaspari, E. L., Mosley, R. A., and Sugg, J. Y., loss of immune substances from the body. III. Diphtheria antitoxin in human sweat, A., 97.
- Neitzke, O. F., sizing characteristics of wax sizes [for the paper industry], B., 57.
- Nekoosa-Edwards Paper Co. See Wells, S. D.
- Nekritsch, M. I., purification of brine for ammonia-soda factories, B., 59.
- Nélis, P. See Ramon, G.
- Nellensteyn, F. J., and Roodenburg, N. M., surface tension and adhesion tension, A., 458. Spreading of water on asphalt bitumen and tar, A., 672.  
and Thoenes, D., action of sulphur on hydrocarbons, A., 47. Formation of asphaltic bitumen from proteins, B., 611.
- Nelles, J. See Braun, J. von.
- Nelson, A. F. See Pearce, J. N.
- Nelson, C. I., specificity of the intracellular globulin of *Fusarium lini*, A., 536.
- Nelson, E. F., and Egloff, G., cracking of Czechoslovakian crude oils, B., 135. Cracking of crude oil gives more benzene of higher octane number, B., 210. Cracking of Trinidad oils, B., 497. Character of Mexican oils, B., 532.  
and Universal Oil Products Co., treatment of hydrocarbon oils, (P.), B., 500. Conversion of hydrocarbons, (P.), B., 854.  
See also Egloff, G., and Watson, K. M.
- Nelson, E. K., volatile oil and resin of *Cynomarathrum Nuttallii*, A., 1093.  
and Keenan, G. L., *i*-inositol in citrus fruits, A., 990.
- Mottern, H. M., and Eddy, C. W., nitrogenous constituents of Florida Valencia orange-juice, A., 878.
- Nelson, E. M., Hurd-Karrer, A. M., and Robinson, W. O., selenium as an insecticide, B., 885.  
and Mottern, H. E., vitamin-C content of frozen orange juice, B., 282.  
See also Mottern, H. H.
- Nelson, E. W., flow lines in forged steel, B., 672.
- Nelson, H. A., and Kittelberger, W. W., preparation of zinc and zinc-alloy surfaces for coating, B., 237.
- Nelson, J. M., and Auchincloss, R., effects of glucose and fructose on sucrose content in potato slices, B., 1075.  
and Hemperly, C., co-enzymes and banana respiration, A., 543.  
and Wilkes, B. G., similarity of the kinetics of invertase action *in vivo* and *in vitro*. III., A., 534.
- Nelson, M., and Ware, J. O., relation of nitrogen, phosphorus, and potassium to the fruiting of cotton, B., 201.
- Nelson, O. A., and Kaylor, H. W., composition for building blocks, (P.), B., 63.  
and Young, H. D., vapour pressures of fumigants. V.  $\alpha$ -Propylene dichloride, A., 894.
- Nelson, P. R. See Archibald, J. G.
- Nelson, R., storage and transportation diseases of citrus fruits apparently due to suboxidation, B., 731.
- Nelson, R. E., Schroeder, R. A., and Bunting, W. R., organic compounds of selenium. III. Action of selenium oxychloride on esters of salicylic acid, A., 407.  
See also Dietzler, A. J.
- Nelson, W. C., and Eastman Kodak Co., toning bath for photographic prints, (P.), B., 93.
- Nelson, W. F., "seasoning" and drying of peat blocks, etc., (P.), B., 498.
- Nelson, W. K., and Universal Gypsum & Lime Co., [plaster] composition construction or insulating material, (P.), B., 468.
- Nembrot, A., and Ceola, M., triacetin as adulterant in butter, B., 204.
- Némec, A., determination of phosphate requirement by the seedling method and by the absorption of phosphates by soil, B., 35. Potash fertilisers for potatoes, B., 933. Phosphorus nutrition of pines, B., 1028.  
and Koppová, A., determination of nitrate in soils, B., 561.
- Némec, V. See Kubelka, V.
- Nemenov, L. M. See Joffé, A., and Nasledov, D. N.
- Nemes, T., influence of calcium formate on rate of carbonation [of sugar juice], B., 886.  
See also Vondrák, J.
- Nemilov, V. A., platinum-cobalt alloys, A., 18, 895.  
See also Kurnakov, N. S.
- Nemoto, C. See Kaneko, S.
- Nemtsova, N. P. See Nikitin, N. I.
- Nemtsova, R. I. See Levant, G. E.
- Neitzescu, C. D., and Cantuniari, I. P., mechanism of action of organo-magnesium compounds on *N*-disubstituted amides of  $\alpha\beta$ -unsaturated acids. II., A., 161.
- Neitzescu, C. D., and Cantuniari, I. P., reactions catalysed by aluminium chloride. VI. Isomerisation of cyclohexane into methylcyclopentane, A., 941.  
and Chicos, J., reactions catalysed by aluminium chloride. V. Compounds formed by the condensation of cyclohexane and acetyl chloride, A., 825.  
and Ionescu, C. N., [aluminium chloride, 3-methylcyclopentanone, cyclopentan-ol, and 3-methylcyclopentanol], A., 159.  
and Isacescu, D. A., *aci*-nitro-compounds. IV. Mechanism of conversion of nitro-derivatives into hydroxamic acids, A., 156. Reactions catalysed by aluminium chloride. VII. Hydrogenation phenomena in the customary Friedel-Crafts reaction, A., 941.
- Neogi, P., constitution of optical isomerides containing quinquivalent nitrogen and geometrical inversion, A., 812.  
and Sen-Gupta, A. B., optical activity of alkaloid salts of geometrically isomeric unsaturated acids, A., 1176.
- Neon Process, Inc. See Johnson, S. J.
- Nepenin, N., and Khviyuzov, P., condition of water in wood at low temperatures, B., 229.
- Nepveux, F. See Labbé, M.
- Nerad, A. J. See Gen. Electric Co.
- Neráth, W. See Putnoky, L. von.
- Nernst, C. See Rosenheim, A.
- Nernst, W., thermodynamics of very dilute gases and solutions, A., 904.
- Nerozzi, N. See Padoa, M.
- Nesbit, A. F., cleaning of gases, (P.), B., 770.
- Nesbitt, C. T. See Robinson, F. E.
- Nesmejanov, A. N., and Makarova, L. G., organic compounds of mercury. V. Arylation of mercuric oxide by aromatic iodoxy-compounds, A., 292. Preparation of aryl derivatives of mercuric oxide by means of aromatic iodo-compounds, A., 1178.
- Nespal, W. See Audrieth, L. F., and Ulrich, H.
- Nestle, R., Schäfer, Karl, and Regener, E., evaporation phenomena with mercury droplets and their influence on the measurement of the elementary quantum of electricity, A., 551.
- Nestlé's Food Co., Inc. See Scott, A. A.
- Neter, E. See Klopstock, A.
- Netter, H. See Mond, R.
- Netter, R., carotene in the endocrine glands of the ox, A., 298. Carotene in horse serum, A., 521.  
See also Rando, L.
- Nettmann, P., paint testing. II., B., 355.
- Netuka, V., inversion of sucrose by active carbons, B., 807. Photo-electric study of sedimentation of active carbons, fresh, exhausted, and regenerated, B., 1041.
- Netz, A. See Stollé, R.
- Neu, R., ethyl ether and its decomposition products, B., 53.
- Neubauer, Elisabeth, study of the difference in assimilability of inorganic and organic forms of phosphorus by the seedling method, B., 242.
- Neubauer, Ernst, possibility of experimentally changing the concentration of alkali metals in bile, A., 1186.
- Neubauer, G. See Bernhauer, K.

- Neubauer, G. A., filling substance [for electric insulating materials, flooring, etc.], (P.), B., 27.
- Neubauer, H., influence of time on serviceability of rye seed in the seedling method [of soil examination], B., 517. Are field trials or laboratory methods the more suitable for determining fertiliser requirement of soils? B., 882.
- Neubaur, E. See Strack, E.
- Neuber, F., and Wachter, H., determination of sulphate ion in sulphonated oils, B., 354.
- Neuberg, C., and Collatz, H., action of glycuronic and galacturonic acid on alanine, A., 151.
- and Hofmann, E.,  $\beta$ -glucosidase, A., 314.
- and Kobel, M., autoxidation, A., 233. Oxidation of glyoxal hydrogen sulphite by molecular oxygen to glyoxylic acid; oxidation of glyoxal by bromine to glyoxylic and oxalic acids, A., 259. Fermentation of methylglyoxal, A., 425. Action of yeast on phosphoglyceric acid. I.—IV., A., 637, 982, 1204.
- and Schoenebeck, O. von, fractionation of myrosinase, A., 863. Constituent enzymes of myrosinase, A., 1202.
- and Simon, Ernst, dismutation of glyoxal, A., 314.
- See also Auhagen, E.
- Neuberg, I. S., three-carbon series. I. Synthesis of glyceraldehyde and glycerol. II. Chemical and biochemical production of alkyl ethers of dihydroxyacetone. III. Crystalline  $\alpha$ -phenylglycerol; detection of acraldehyde and of methylglyoxal, A., 53.
- See also Collatz, H.
- Neuberger, H. C., and Neuberger Chem. Corp., manufacture of bituminous material [for road construction], (P.), B., 902.
- Neuberger Chemical Corporation. See Clark, J. W., and Neuberger, H. C.
- Neubert, F. See Tammann, G.
- Neubert, H., analysis of white metals and their smelter products, B., 232.
- Neuberth, G. E., and Tube Reducing Corp., metal tube, (P.), B., 111.
- Neuburger, M. C., lattice constant of beryllium, A., 665. Crystal structure of  $\alpha$ ( $\beta$ )tungsten, A., 665. Crystal structure and lattice constants of mercury, A., 666.
- Neugebauer, G., theory of the Kerr effect of diatomic molecules, A., 663.
- Neugebauer, H., luminescence of ginseng, B., 43. Determination of alkaloids in hydrastis  $\theta$ , hydrastis fluid extract, and other homœopathic tinctures, B., 1084.
- Neugebauer, V., genetic characters of Serbian soils in relation to their degradation, B., 1023.
- Neuhaus, F., steel [pressure] vessel, (P.), B., 432.
- Neuhaus, J., diaphragms, filters, and other porous bodies, (P.), B., 945.
- Neuhaus, M. See Marek, L. F.
- Neuhaus, H., making and patching [induction] furnace walls and linings, (P.), B., 636.
- and Ajax Metal Co., sintering of refractories from molten magnesite or other materials, (P.), B., 268. Induction electric furnace, (P.), B., 433. Sintering mechanism, (P.), B., 631.
- and Clamer, G. H., metallurgical apparatus, (P.), B., 632.
- Neuman, E. W., solubility relations of barium sulphate in aqueous solutions of strong electrolytes [at 25°], A., 456. X-Ray structure of sodium fluorophosphate, A., 1107.
- Neuman, L., treatment of textiles and paper and sizes therefor, (P.), B., 667.
- Neumann, A., spiritus aetheris nitrosi, B., 684. See also Rieder, W.
- Neumann, A. L. See Abderhalden, E., and Tubandt, C.
- Neumann, B., and Goebel, Erich, adsorption of sulphurous acid by platinum, ferric oxide, and chromic oxide. I., A., 773, 1009.
- Kröger, C., and Fingas, E., chemical basis of production of water-gas from coke and coal, B., 48. Action of water vapour on coal and coke [and graphite], B., 178. Action of water vapour on coal and coke, B., 337.
- and Sonntag, A., dissociation pressures of nitrates and sulphates. I. Apparatus. II. Vanadyl sulphate and lead nitrate, A., 45, 1246.
- and Wang, H., oxidation of methane by metallic oxides, B., 257.
- See also Schmidt, Jürgen.
- Neumann, F. See Stackelberg, M. von.
- Neumann, G., gas economy [in furnaces] by preheating, B., 772.
- Neumann, H. See Schramek, W.
- Neumann, Hans, Kühlewein, H., and Siemens & Halske A.-G., magnetic [cobalt-nickel-iron] alloy of high permeability, (P.), B., 272.
- Neumann, K. E. See Schwalbe, C. G.
- Neumann, L. See Peters, K.
- Neumann, M. B., and Egorov, L. N., conditions of ignition of gaseous mixtures. I. Induction period of the thermo-ignition of methane-oxygen mixtures, A., 129.
- and Serbinov, A. I., conditions of ignition of gaseous mixtures. II. Region of thermo-ignition of methane-oxygen mixtures, A., 129.
- Neumann, M. P., and Seidel, K., loss by fermentation in manufacture of bread, B., 39.
- Neumann, R., boiling methods [for sugar juices] in Peru, B., 120.
- Neumann, W., colorimetric determination of  $p_H$  at higher temperatures. I. Water, A., 1022.
- See also Bennewitz, K.
- Neumayr, S. See Zintl, E.
- Neurath, H., and Pauli, W., highly-purified ferric oxide sols, A., 460.
- Neuschlosz, S. M., urinary composition and acid-base equilibrium. IV. Acid excess of urine. V. Effect of muscular work on composition of the urine. VI. Mechanism of the origin of acid and alkaline urine, A., 182, 627. Mode of occurrence of acidosis, A., 969.
- Neuwirth, F., Austrian brown coal, B., 658.
- Neuwirth, R. See Kautsky, H.
- Nevalonny, M. See Kříženecký, J.
- Neven, P., solid grinding or abrading material, (P.), B., 3.
- Nevens, W. B., and Shaw, D. D., relative digestibility by rats of the milk of five breeds of dairy cattle, A., 743. Effect of dairy manufacturing processes on nutrient value of milk. I. Apparent digestibility of fresh whole milk and of evaporated milk. II. Apparent digestibility of fresh whole milk and of powdered whole milk, B., 168, 569.
- Neville, G. H. J. See Norrish, R. G. W.
- Neville, H. A., and McIlraith, E. J., removal of carbon monoxide from exhaust gases [from internal-combustion engines], (P.), B., 377.
- Neville Co. See Schwalm, B. F.
- Nevitt, H. G., weighted % equation aids chemical calculations, B., 127.
- New, G. F., colorimetry of pigments, B., 399. Physical tests and their bearing on manufacture and use of protective materials, B., 1067.
- New, R. G. A. See Sutton, L. E.
- New England Club, decorative finishes: materials and methods used in their creation, B., 1018.
- New England Fuel & Transportation Co. See Folsom, R. M.
- New Jersey Zinc Co., and Ginder, P. McL., purifying zinc, (P.), B., 972.
- Holstein, L. S., and Ginder, P. McL., purifying zinc vapour, (P.), B., 634.
- Holstein, L. S., and Stutz, G. F. A., zinc sulphide, (P.), B., 267.
- See also Anderson, E. A., Bunce, Earle H., Flynn, E. J., Hooley, W. C., and Peirce, W. M.
- New Process Metals Corporation. See Miller, Hans.
- New York Club, standards for fineness of pigment grinding, B., 977. Standard skinning test for varnishes and pigmented products, B., 1018. Kauri reduction test *versus* durability of newer-type varnishes, B., 1018.
- New York Hamburger Gummi-Waaren Co., rubber chlorination products, (P.), B., 481.
- Newbery, C. W. See Hoge, D. W.
- Newbery, E., metallised-glass hydrogen electrodes, B., 925.
- and Naude, S. M., electrolytic refining of mercury, B., 923.
- Newburger, P. G. See Zucker, T. F.
- Newburgh, L. H., and Waller, D. S., diabetes mellitus; evidence that disability is concerned solely with metabolism of glucose; mode of action of insulin, A., 302.
- Newcomer, E. J., and Carter, R. H., casein-ammonia, a practical emulsifying agent for preparation of oil emulsions by orchardists, B., 1074.
- See also Carter, R. H.
- Newell, I. L., and Ficklen, J. B., concentration of heavy hydrogen isotope, A., 683.
- See also Skau, E. L.
- Newell, J. M., and McCollum, E. V., rôle of zinc in nutrition, A., 1196.
- Newhall, A. G. See Pirone, P. P.
- Newing, R. A. See McCrea, W. H.
- Newitt, D. M., and Block, A. M., slow combustion of ethane at high pressures, A., 678.
- and Lamont, F. G., gaseous combustion at high pressures. XVI. Nitric oxide formation in continuous high-pressure flames of carbon monoxide in oxygen-nitrogen atmospheres, A., 231.
- and Szegő, P., slow oxidation of aromatic hydrocarbons at high pressures, A., 942.
- See also Bone, W. A.
- Newkirk, E. D. See Snyder, F. H.
- Newkirk, W. B. See Ebert, C.
- Newlander, J. A., feeding value of artificially-dried young grass, B., 364.
- and Jones, C. H., digestibility of artificially-dried grass, B., 364.
- See also Ellenberger, H. B.



- Newling, W. B. S., Staveley, L. A. K., and Moelwyn-Hughes, E. A., kinetics of the thermal and photochemical reaction between iodine and diazoacetic ester in carbon tetrachloride solution, A., 1250.
- Newman, A., and Pacific Coast Borax Co., preparation of boric acid, (P.), B., 702.
- Newman, A. C. C., and Riley, H. L., synthesis of tartaric acid, A., 258.
- See also Astin, S.
- Newman, D. F. See Payne, A. C.
- Newman, F. H., cold cathode vacuum arc, A., 3. Cathode sputtering, A., 139.
- Newman, M. S., and Anderson, R. J., lipins of yeast. I. Acetone-soluble fat. II. Phospholipins, A., 1205.
- Polysaccharides of *Iopra bacilli*, A., 1207.
- See also Anderson, R. J.
- Newnam, W. E., McCallum, J., and Nat. Lead Co., white lead [sulphate] pigment, (P.), B., 30.
- Newport Chemical Corporation. See Zinner, D.
- Newport Industries, Inc. See Henke, C. O., Oliver, A. F., and Romaine, B. van.
- Newsome, J. W. See Pearce, J. N.
- Newsome, P. T. See Sheppard, S. E.
- Newton, H. W. See Harkins, W. D.
- Newton, E. B., and Amer. Anode, Inc., purification of aqueous dispersions [especially of rubber], (P.), B., 480.
- and Goodrich Co., B. F., dispersion of rubber in water, (P.), B., 979.
- Newton, H. P. See Groggins, P. H.
- Newton, H. W., and Dorr Co., Inc., bowl classifier, (P.), B., 688.
- Newton, J. D. See Bowser, W. E.
- Newton, R. C., Grettie, D. P., and Swift & Co., antioxidant for fats and oils, (P.), B., 1066.
- Richardson, W. D., and Swift & Co., stabilising fats and oils, (P.), B., 797.
- and Swift & Co., neutralisation of fatty acids in oils and fats, (P.), B., 718.
- Newton, R. H. See Furnas, C. C.
- Newton, W., Hastings, R. J., and Bosher, J. E., nematode infestation symptoms on barley as a means of determining efficiency of chemicals as lethal agents against *Tylenchus dipsaci*, Kuhn, B., 982.
- Sterilisation of narcissus bulbs by immersion in silver nitrate-potassium cyanide solution *in vacuo*, B., 983.
- Newton, Chambers & Co., Ltd. See Napier, J. W.
- Ney, A. H., [collector for use in] flotation of ores, (P.), B., 69.
- Nguyen-Kim-Kinh. See Peirier, J. C.
- Ni, T., secretion and oxygen consumption in isolated salivary glands of *Aplysia*, A., 626.
- Niagara Smelting Corporation. See Muggleton, G. D.
- Niagara Sprayer Co. See Tower, M. L.
- Nicolini, P. M., action of sulphur on carbohydrate metabolism, A., 1329.
- Nichita, G. See Iftimescu, G.
- Nicholas, H. O., and Kuhn, E. M., rôle of calcium, phosphorus, and vitamin-D in pregnancy, A., 853.
- Nicholls, J. R., determination of benzoyl peroxide in flour, B., 203.
- Nicholls, P., and Selvig, W. A., clinker formation as related to fusibility of coal ash, B., 610.
- Nichols, G. W., new bath for direct nickel-ing of zinc, B., 922.
- Nichols, H. J., filler for projectiles, (P.), B., 45.
- Nichols, H. J., jun., Kuhl, P. E., and Standard Oil Development Co., apparatus for absorbing gas [in oil refineries], (P.), B., 499.
- Wise, C. R., and Standard Oil Development Co., regeneration of solutions used in purification of hydrocarbon gas, (P.), B., 613.
- Nichols, J. E. See King, A. T.
- Nichols, M. L., micro-Dumas method [for determination of nitrogen], A., 477.
- Nichols, Mark L., and Bayer, L. D., interpretation of physical properties of soil affecting tillage by means of the Atterberg consistency constants, B., 242.
- Nichols, P. F., sulphurous acid in dried fruits, B., 122.
- See also Morgan, A. F.
- Nichols Copper Co. See Lucas, J. H.
- Nichols Engineering & Research Corporation. See Brockway, G. G., Fowler, E. J., and Hartley, H. J.
- Nicholson, T. F. See Harding, V. J.
- Nichterlein, A., nomogram for calculation of soda in boiler water and of alkali in boiler feed-water, B., 1.
- Nickerson, J. L., current-intensity relation of the 600 Å. band of helium, A., 439.
- Nicklas, A. See Stock, A.
- Nickle, C. A. See Gen. Electric Co.
- Nicklin, H. S., experience with taste in water at Guelph [Ont.], B., 606.
- Nieloux, M., combustion of alcohol by poikilothermic animals; effect of temperature, A., 182.
- Combustion of alcohol by the small mammal; mouse, A., 182.
- Reaction velocity and van 't Hoff's temperature coefficient of combustion of alcohol in the organism of the poikilothermic animal, A., 182.
- Oxidation of sodium hyposulphite by free oxygen, A., 361.
- Micro-determination of alcohol in alcohol-air mixtures, A., 408.
- Nicodemo, F., and Indestructible Alloy Co., non-corrosive [tin-antimony] alloy and articles made therefrom, (P.), B., 432.
- Nicol, H., Rothamsted experiments on residual values of leguminous crops, B., 645.
- Nicola, P. C. See Spoelstra, H. J.
- Nicolas, E., differentiation of caseinogen and casein by the biological serum-precipitation method, A., 300.
- Nicolescu, I. See Mironescu, A.
- Nicolet, B. H., an extension and a limitation of the thiocyanate method for preparation of 2-thiohydantoins, A., 283.
- Preparation of esters of *α*-bisacetamidopropionic acid, A., 494.
- See also Csonka, F. A.
- Nicolini, M. See Antoniani, C.
- Nicoll, F. H., and Mohr, C. B. O., inelastic scattering of slow electrons in gases. III., A., 1222.
- See also Mohr, C. B. O.
- Nicolov, N. I. See Ivanov, D.
- Nicalumin Co. See Hybinette, N. V.
- Niculescu, M. See Voicu, J.
- Nida, S., rendzina soils of Polessie, A., 1031.
- Nie, H. See Steinke, E. G.
- Niedergesass, B. F. See Brit. Thomson-Houston Co.
- Niederhauser, J., dyeing two colours on half-wool materials, B., 461.
- See also Martin, G.
- Niederl, J. B., and Liotta, C., synthesis of phenolic long-chain fatty acids, A., 948.
- Natelson, S., and Beekman, E. McK., synthesis of diisobutyl-mono-, -di-, and -tri-hydric phenols, A., 819.
- and Storch, E. A., rearrangement of phenyl and tolyl alkenyl ethers and syntheses of isopropenylphenols and their reduction products, A., 270.
- See also Smith, R. A.
- Niehaus, C. See Hilpert, S.
- Niekerk, J. van. See Reerink, E. H.
- Nield, A. See Smith, D.
- Nielsen, B. See Andresen, K. G.
- Nielsen, C. See Emmett, A. D.
- Nielsen, E. T., micro-respiration apparatus, A., 222.
- Nielsen, H., [light] bricks, (P.), B., 1009.
- Nielsen, H. C., and Nat. Wood Products Co., impregnation of wood, (P.), B., 708.
- Nielsen, H. H., and Sprague, A. D., infra-red absorption by hydrogen sulphide at 8  $\mu$ , A., 208.
- Nielsen, J. R. See Langseth, A.
- Nielsen, L., decomposition of sodium phenylethylbarbiturate in aqueous solution, B., 812.
- Nielsen, N., effect of age on nitrogen content of yeast, A., 1205.
- and Hartelius, V., chemical production of a growth-promoting substance of the B group, A., 189.
- Action of metals as co-catalysts of growth, A., 638.
- Growth of *Aspergillus niger* at different  $p_H$  values, with and without addition of growth-promoting substance B, A., 1205.
- Nielsen, N. A., purity of insulin preparations, A., 538.
- Nielsen, W. M., new ultra-ionisation potentials of mercury vapour, A., 202.
- Niemann, C., and Link, K. P., synthesis of hexuronic acids. II. Synthesis of *d*-mannuronic acid from *d*-mannosaccharic acid, A., 595.
- Schoeffel, E., and Link, K. P., substituted hydrazine derivatives of hexuronic acids; phenylhydrazine and *p*-bromophenylhydrazine derivatives of *d*-galacturonic acid and *p*-bromophenylhydrazine derivatives of *d*-mannuronic acid, A., 808.
- Niemann, J. See Borsche, W.
- Niemer, H. See Hahn, A.
- Nienburg, H. See Abderhalden, E.
- Nier, B., tin-plating [of iron and steel], (P.), B., 472.
- Nierenstein, M., rhatany catechin, A., 103.
- Application of the goldbeater's skin test to synthetic tannins, B., 80.
- Niessner, M., chemical identification of additions to alloys and inhomogeneities in metallic industrial materials, B., 23.
- Nieto, C. A., preservation of fruit, (P.), B., 170.
- Nieuwald, J. A. See Du Pont de Nemours & Co., E. I.
- Nieuwenburg, C. J. van, chemical composition of the earth, A., 588.
- Nieuwenhuis, W. E., dependence of the m.p. of carbon tetrachloride on the previous thermal treatment, A., 1109.
- Nieuwenkamp, W., and Bijvoet, J. M., crystal structure of lead bromide, A., 215.
- See also Bijvoet, J. M.
- Nieuwland, J. A. See Baldinger, L. H., Coffman, D. D., Hennion, G. F., Sowa, F. J., Spahr, R. J., and Vaughn, T. H.

- Nievergeld, J. H. C., determination of contrast media [iodine compounds] in urine, A., 178.
- Nifontova, S. S. See Nametkin, S. S.
- Niggemeyer, H., "headless" fermentation, B., 568.
- Niggli, P., stereochemistry of crystal compounds. XI. Structural formulae of crystal compounds, especially of silicates, A., 1001.
- and Nowacki, W., stereochemistry of crystal compounds. X. Molecular and crystalline configuration, A., 1001.
- Nightingale, G. T., effects of temperature on metabolism in tomato, A., 1215.
- Schemmerhorn, L. G., and Robbins, W. R., effects of sulphur deficiency on metabolism in tomato, A., 438.
- Nightingale, H. W., chemical and biological characteristics of Pacific Northwest waters, B., 606.
- Nikiforov, V. N. See Krasilnikov, I. I.
- Nikitin, A. A., and Naugatuck Chem. Co., treatment of [rubber] latex, (P.), B., 677.
- Nikitin, B. A., and Miatelkin, P. V., radioactivity of natural salines of the Ural region, Gorki district, and Bashkir Republic, A., 1267.
- Nikitin, E. K. See Tschelincev, V. V.
- Nikitin, N. I., benzylcelluloses, A., 812.
- and Avidon, M. A., benzylation of cellulose under technical conditions. II., B., 959.
- and Nemtsova, N. P., wet charring of timber refuse and spent caustic liquors from sulphite process of manufacturing cellulose, B., 417.
- and Palukhin, D. V., heating value and composition of charcoals, B., 496.
- and Rudneva, T. I., ethylation of cellulose. I and II., A., 812; B., 958.
- Nikitin, V. V., corrections and additions to the diagram for the determination of feldspars by Fedorov's method, A., 691.
- Nikitina, E. A., preparation of potassium nitrate by double decomposition, B., 623.
- See also Rakovski, A. V.
- Nikitinukh, N. M. See Goriachev, A. P.
- Niklas, H., and Frey, A., relation between reaction and mechanical composition of soils, B., 359.
- Poschenrieder, H., and Trischler, J., *Aspergillus* method of potash [availability in soils], B., 401.
- Schropp, W., and Hock, A., manurial experiments with silicophosphate, B., 163.
- Niklas, N., Vilsmeier, G., and Kohl, F., determination of the phosphoric acid requirement of soils by means of *Aspergillus niger*, B., 1071.
- Niklewski, B., influence of colloidal substances on growth of cultivated plants, B., 759.
- See also Przylecki, S. J. von.
- Nikolaiev, V. I., Gritzevich, E. V., Styazhkina, E. G., and Rudenko, E. I., origin and composition of astrakhanite; labile crystallisation fields of sodium chloride and epsomite, A., 251.
- Solovov, A. M., and Frishmut, M. A., mud from Lake Dapkhur, Russia, A., 588.
- and Stepanov, B. I., characteristics of newly discovered lakes to the north of the Volga delta: Deschsheschak, Bekesch-Sor, etc., A., 927.
- Nikolov, C., volumetric determination of cobalt, A., 584. Comparative studies on railway sleepers impregnated with lalit, cresonaphthol, and zinc chloride, B., 628.
- Nikolski, B. P., and Lavrov, I. N., potentiometric determination of potassium, A., 922.
- Nikolski, S. I. See Selivanov, B. P.
- Nikulin, M., and Hetmann, Z., effect of benzene on blood-fats and -lipins, A., 1327.
- Nill, E. A., Strack, W., West, A., and Montgomery Co., H. A., lubricating composition, (P.), B., 215.
- Nilsson, H., and Smith, L., mode of formation of chlorohydrins. VI. Higher homologues of ethylene chlorohydrin, A., 1124.
- Nilsson, R., glycolytic degradation of carbohydrates, A., 425. Origin of glyceromonophosphoric acid and its rôle in glycolysis, A., 863.
- Nims, B. See Hunscher, H. A.
- Nims, L. F., second dissociation constant of phosphoric acid from 20° to 50°, A., 675.
- and Smith, P. K., ionisation of *dl*-alanine from 20° to 45°, A., 904.
- Nimz, C., briquetting of coal, (P.), B., 950.
- Nininger, H. II., Springwater meteorite, A., 140.
- Ninnelt, F., production of artificial silk without employment of individual spinning pumps, (P.), B., 1052.
- Ninni, C., filterable fractions of tubercle toxin, A., 640.
- Nipper, H., gas content of cast aluminium alloys, B., 561.
- Nippon Shinyaku Kabushiki Kaisha. See Ishihara, T.
- Nisbet, H. B., reactivity of groups in substituted acridones. II. Cationoid activity at position 4 in acridones, A., 1306.
- and Goodlet, A. B., reactivity of groups in substituted acridones. I. Replacement of nitro-groups by piperidyl and piperazyl, A., 74.
- and Gray, C. G., heterocyclic ketones. I.  $\beta$ -Aminoketones and related pyrazolines derived from benzylidene- and furfurylidene-acetone, A., 957.
- Nishi, M. See Kafuku, K.
- Nishi, T. See Fujise, S., and Shibata, R.
- Nishida, K., putrefactive products of beer yeast, A., 428.
- See also Yoshimura, K.
- Nishigaki, M. See Kotake, Y.
- Nishigaki, S., carbohydrate metabolism in obstructive jaundice, A., 1190.
- Nishigôri, S., iron-nitrogen system, A., 1245.
- Nishikawa, H., biochemistry of filamentous fungi. I. Colouring matters of *Monascus purpureus*, Went., A., 751.
- Nishikawa, T. See Suzuki, Kozo.
- Nishikawa, Y. See Hayashi, D.
- Nishimoto, U., and Suzuki, B., phosphatides of human brain. IV. Separation of  $\alpha$ - and  $\beta$ -kephalins. V. Isolation of simple kephalins, A., 297.
- Nishimura, E., behaviour of skin towards solutions of various kinds and various concentrations. II. Swelling of normal human skin; change in weight. III. Is change in weight of normal skin influenced by temperature of the solutions? IV. Pathological skins, A., 1328.
- Nishimura, H., equilibrium diagram of a ternary system containing a gaseous phase, A., 126.
- Nishimura, J. See Haohiya, T.
- Nishimura, S., proteolytic enzymes and coagulation of caseinogen, A., 749.
- Amylosynthase. V., A., 1330.
- Nishiyama, Z., corrections for Debye-Scherrer X-ray photographs, A., 12.
- X-Ray investigation of ageing effect in quenched carbon steels, B., 1059.
- See also Honda, K.
- Nishizawa, K., sulphonated oils. XIV. Sulphonated oil made from sperm oil; preparation of salts of pure cetyl hydrogen sulphate and their properties. XV. Properties of aqueous solutions of pure salts of cetyl hydrogen sulphate, A., 374.
- and Amagasa, M., molasses formation. II. Equilibrium of the ternary system sucrose-water-sodium (or potassium) carbonate at 30°. III. Equilibrium in the ternary system sucrose-water-sodium (or potassium) acetate at 30°. IV. Equilibrium of the system sucrose-water-sodium or potassium sulphate at 30°, A., 1240, 1246.
- Nisikado, Y., and Yamauti, K., sap stains of wood in Japan. I. *Ceratostomella* sp., Rumbold, the cause of a blue stain of pine trees in Western Japan, A., 866.
- Nissen, H. See Bomskov, C.
- Nisson, P. S., Mandelbaum, M. R., and Gray Processes Corp., mercaptans and mercaptides, (P.), B., 218.
- Nitardy, F. W., and Squibb & Sons, E. R., protection of autoxidisable materials, (P.), B., 685.
- Nitchenko, A. F. See Chernobuilski, I. I.
- Nitka, H., intensity of band spectrum of phosphors, A., 446.
- Nitricastron Co., Ltd., and Babinet, M. L. A., nitrogenised cast-iron alloy articles, (P.), B., 472.
- Nitschke, A., and Schneider, M., basal metabolism in rachitic infants and infants with rickets and tetany, A., 304.
- Nitzberg, G. See Khouvins, (Mme.) Y.
- Nitzescu, I. I., and Binder, E., iodine content of ox thyroids, A., 177.
- Blood-iodine, A., 410.
- and Macovski, E., nature of blood-sugar, A., 521.
- and Munteanu, N., parasympathicotonics and blood-lactic acid, A., 185.
- Ergotamine and adrenaline-controlled increase of blood-lactic acid, A., 185.
- Effect of adrenaline on liver- and muscle-glycogen, A., 430.
- Popoviciu, G., and Oprean, R., excretion of calcium and phosphorus on maize diet, A., 1195.
- See also Popoviciu, G.
- Nius, E., modern chips in practice, B., 888.
- Niven, A. See Dunlop Rubber Co.
- Niven, C. D., thermal conductivity of various insulators at room temperature, B., 943.
- Nixon, A. C., and Krauskopf, K. B., rate of reaction between chlorate and sulphur dioxide in acid solution, A., 130.
- Nixon, G. R. See Burmah Oil Co.
- Nixon, J. See Hodgson, H. H.
- Niyogi, S. P., Narayana, N., and Desai, B. G., nutritive value of Indian vegetable foodstuffs. IV. *Phaseolus mungo* and *P. radiatus*, A., 1325.

- Niyogy, S. C., chemotherapy of organo-metalloid compounds, A., 747.
- Njegovan, V., internal effect in thermodynamic transformations. II. and III., A., 351, 783.
- and Marjanović, V., determination of sulphates, A., 687. Quantitative precipitations in highly concentrated solutions. IV., A., 921.
- Noack, K., production of highly polymerised aliphatic alcohols [lubricants and softeners], (P.), B., 955.
- Nobili, G., preparations of cod-liver oil with iron and with ferrous iodide, B., 570.
- Nobili, L., thermal study of mixtures having an analgesic action, A., 782. Green colour of a sample of olive oil, B., 1017.
- Noble, E. G. See Linstead, R. P.
- Noble, I. T., Dean, M., Wing, M., and Halliday, E. G., *in vitro* digestion of the starch of long- and short-cooked cereals, B., 602.
- and Halliday, E. G., quantitative measurement of the carbon dioxide evolved in and lost from simplified muffin batters, B., 489.
- Noble, P. W., *jun.* See Kenyon, C. F.
- Noble, W., Welcome, C. J., and Electromaster, Inc., chromium-plating process, (P.), B., 714.
- Noble, W. B., sod webworms and their control in lawns and golf greens, B., 245.
- Noda, T., addition of sodium chloride during calcination of lime, B., 746.
- and Ueda, E., calcination of limestone. I. and II., B., 746.
- See also Matsui, M.
- Nodder, C. R., chemical degradation of linen cellulose, B., 298.
- See also Derrett-Smith, D. A., and Lynch, L. P.
- Noel, H. M. See Howard, F. A.
- Noetzel, O., detection and determination of strychnine in urine, A., 525. Fluorine-containing cold glue, B., 482.
- Nogier. See Mouriquand, G.
- Nogin, K., dry distillation of sunflower-seed hulls, B., 849.
- Noguchi, K. See Yamazaki, N.
- Noguchi, Taro. See Kimm, R. H.
- Noguchi, Tatsuya. See Fujiwara, T.
- Nolan, H. O., decomposition of anaesthetic ether, B., 891.
- and Ellis, C., tawing, dehydrating, and astringent product, (P.), B., 758.
- and Ellis-Foster Co., marine [cod-liver] oil product and its manufacture, (P.), B., 927.
- See also Mapson, L. W.
- Nolan, J. J., and Galvin, A. C., effect of water vapour on diffusion coefficients of ions in nitrogen and oxygen, A., 668.
- and O'Keeffe, J. G., multiply-charged large ions, A., 203.
- Nolan, P. J., influence of condensation nuclei and dust particles on atmospheric ionisation, A., 657.
- Nolan, T. J., and Keane, J., salazic acid and constituents of the lichen, *Labaria pulmonaria*, A., 1092.
- Noll, A., hardness of wood pulps, B., 1050.
- Bolz, F., and Fiedler, H., determination of lignin in cellulose, B., 12.
- Noll, F. H. W., X-ray diffraction in ethyl ether near the critical point, A., 14.
- Noll, W., geochemistry of strontium, A., 1030.
- Noller, C. R., and Dutton, G. R., preparation of trialkyl phosphates and their use as alkylating agents, A., 256.
- and Eastman Kodak Co., manufacture of cellulose acetate with vaporised acetylating agents, (P.), B., 699.
- Polymerised vinyl alcohol, (P.), B., 954.
- and Gordon, J. J., preparation of higher aliphatic sulphonic acids, A., 487.
- Grebe, W. E., and Knox, L. H., reducing action of the Grignard reagent. III. Hydrocarbons formed during reduction, A., 159.
- Millner, I. J., and Gordon, J. J., decoic acid from seed fat of the California bay tree, A., 544.
- Nolte, A. C. See Schwab, G.
- Nolte, A. G., determination of phenol in river water, B., 894.
- and Kramer, W. A., comparison of three methods of determining the colon-aerogenes group, B., 414. Coagulation [of water supplies] with aluminium sulphate, B., 1087.
- Nolte, O., Münzberg, H., Stockklauser, F., Daum-Grub, F., Bünger, H., Werner, A., and Schultz, J., replacement of potato flakes by sugar-beet products in pig fattening, B., 811.
- Nomamoto, S. See Oda, R.
- Nomura, H. See Shimamura, T.
- Nonomura, S. See Asahina, Y.
- Nopitsch, M., mildew attack of cotton and wool, B., 501.
- Noponen, G. E. See Kolthoff, I. M.
- Norberg, B., and Teorell, T., micro-determination of phosphatides in tissues and blood, A., 1183.
- Norcom, G. D., bleaching clay in water purification, B., 686.
- Nord, F. F. [with Ranke-Abonyi, O. M. von, and Weiss, G.], application of cryolysis to biological problems, A., 878.
- and Weiss, G., mechanism of enzyme action. XII. Cryolysis and the absorption of gases by lyophile colloids. II., A., 982.
- See also Weiss, G.
- Nordberg Manufacturing Co., jaw crushers, (P.), B., 528.
- See also Symons, E. B.
- Nordbø, R., one-valve amplifier for pH determinations with glass electrode, A., 689.
- Norddeutsche Hefeindustrie Akt.-Ges., durable yeast, (P.), B., 39.
- Nordheim, L. See Blochinzev, D.
- Nordlander, B. W. See Gen. Electric Co.
- Nordlund, M. See Virtanen, A. I.
- Nordmark-Werke Ges.m.b.H., treatment of organic [animal or vegetable] materials of cellular character with salt solutions, and salt mixtures for use in such treatment, (P.), B., 444.
- Nordmeyer, M., collision of slow positive ions in inert gases. I. Ion sources. II. Ionisation by K<sup>+</sup> ions in argon, A., 442.
- Nordstrand, R. D. van. See Brit. Thomson-Houston Co.
- Nordt, H. See Gluud, W.
- Norgaard, A., experiences concerning 1000 insulin-treated diabetics, A., 302.
- Norina, L. I. See Kiselev, V. S.
- Norkina, S. See Orekhov, A.
- Norling, F. See Stelling, O.
- Norman, A. G., development of structural constituents in the barley plant, A., 648.
- and Jenkins, S. H., lignin content of cellulose products, A., 715. New method for determination of cellulose, based on observations on removal of lignin and other encrusting materials, B., 663.
- and Peterson, W. H., chemistry of mould tissue. II. Resistant cell-wall material, A., 189.
- Peterson, W. H., and Houtz, R. C., chemistry of mould tissue. I. Soluble carbohydrate constituents, A., 189.
- See also Hawley, L. F.
- Norman, D. B. See Woodman, H. E.
- Norman, D. G. See Grindley, W. H.
- Normann, W., and Schildknecht, E., determination of hydroxyl number, A., 1276.
- Normark, A. I. See Baboshin, A. L.
- Normington, J. B. See Allen, C. F. H.
- Norpoth, L., and Kaden, E., lactic acid of gastric juice, A., 412.
- Norris, E. R., and Church, A. E., antimony chloride colour reaction for vitamin-A. V. Evaluation of a colorimetric unit on the basis of the biological unit for vitamin-A, A., 195.
- Norris, F. W. See Bailey, K.
- Norris, J. F., and Petroleum Chem. Corp., purification of synthetic or substitution products such as alkyl halides, (P.), B., 216.
- Norris, J. H., and Ampt, G., determination of chloride in blood, A., 734.
- See also Apperly, F. L.
- Norris, W. V., and Unger, H. J., infra-red absorption bands of methane, A., 445.
- Norrish, R. G. W., primary photochemical production of free radicals, A., 1256.
- and Griffiths, J. G. A., combination of hydrogen and oxygen photo-sensitised by nitrogen peroxide, A., 236.
- and Neville, G. H. J., photo-sensitised decomposition of ozone by chlorine, A., 472.
- and Ritchie, M., photosynthesis of hydrogen chloride. III. Mixtures containing oxygen, A., 791.
- See also Crone, H. G., Kirkbride, F. W., and Ritchie, M.
- Norristown Magnesia & Asbestos Co. See Jenkins, T., and Wilson, G. V.
- Norsk Hydro-Elektrisk Kvaestofaktieselskab, treatment of phosphatic rocks, (P.), B., 464, 506. Treatment [dehalogenation] of crude phosphates, (P.), B., 506. Fertilisers, (P.), B., 647.
- Norske Aktieselskab for Elektrokemisk Industri, [self-baking] electrodes for electric furnaces, (P.), B., 314.
- North, C. O., and Rubber Service Laboratories Co., aldehyde-amine reaction products [vulcanisation accelerators], (P.), B., 956.
- Scott, W., and Rubber Service Laboratories Co., vulcanisation of rubber, (P.), B., 319.
- North, E. O. See Feinstein, H. L.
- North Carolina Finishing Co., Inc. See Robertson, Julian.
- North Metropolitan Electric Power Supply Co., and Rheam, G. T. T., gas-washing apparatus, (P.), B., 609.
- North Shore Coke & Chemical Co. See Patton, W. D.
- Northcutt, R. T., and Gen. Packing Corp., preparation of a syrup carrying pectin in suspension, (P.), B., 42.

- Northern Laboratories, Inc. See Chatain, H. G.
- Northrop, B. K. See Gray, D.
- Northrop, J. H., crystalline pepsin. V. Isolation from bovine gastric juice, A., 535. Crystalline trypsin. IV. Reversibility of inactivation and denaturation by heat. V. Kinetics of digestion of proteins with crude and crystalline trypsin, A., 914.
- and Kunitz, M., crystalline trypsin. I. Isolation and tests of purity. II. Properties. III. Methods of measuring activity, A., 94. Action of crystalline trypsin on pentaglycylglycine, tri-*L*-alanyl-*L*-alanine, and tetra-*DL*-alanyl-*DL*-alanine, A., 621.
- See also Lavin, G. I.
- Northrup, E. F., and Ajax Electrothermic Corp., inductor-type furnace, (P.), B., 112. [Coreless] inductor-type furnaces [for vaporising metals], (P.), B., 636. Induction electric furnace, (P.), B., 674, 715.
- See also Electric Furnace Co.
- Northup, D. See Gellhorn, E.
- Northwest Paper Co. See Gortner, R. A.
- Norton, A. L., water-flow calorimeters, (P.), B., 213, 294.
- Norton, B., and Collins, J. N., [pneumatic] plant for separation of materials from one another, (P.), B., 3.
- Norton, C. L., concrete, (P.), B., 868.
- Norton, F. H., nature of clay. II., B., 268.
- and Duplin, J. V., jun., muffle kiln of high efficiency, B., 386.
- Norton, F. J. See Marshall, A. L.
- Norton, Francis J., and Solvay Process Co., analytical method [of testing hypochlorites] and apparatus therefor, (P.), B., 588.
- Norton, J. W. See Smith, A. E.
- Norton, R. J., and Amer. Magnesium Metals Corp., [beryllium-magnesium] light-metal alloy, (P.), B., 635.
- Norton, W. J., modern [textile] finishing machinery, B., 961.
- Norton Co., articles of bonded granular material [abrasive wheels], (P.), B., 176.
- See also Ridgway, R. R., and Webster, D. E.
- Nosenko. See Losev, K. I.
- Noskov, M. See Kikoin, I.
- Noss, F., and Sadler, H., microscopical differentiation between soda (sulphate) and sulphite pulp by aid of primary and secondary fluorescence, B., 824.
- Nothmann, M., mineral metabolism and salyrgan diuresis, A., 1199.
- and Wendt, H., function of pancreas in fat absorption, A., 306, 742.
- Noto, F., and Perciabasco, F., detection of oxalic acid in citric acid, B., 340.
- Nottage, (Miss) M. E., analysis of mineral lubricating oils by fractionation with acetone, B., 99.
- See also Hardy, (Sir) W.
- Nottebohm, F. E., methods of investigation of preserved milk preparations, B., 1079. Suggested regulations for control of melted cheese, B., 1080.
- and Baumann, O., sodium chloride-free ash of raw and melted cheese, B., 603.
- and Mayer, Fr., lecithin preparations of animal and vegetable origin, B., 330. Do cacao beans contain lecithin? [determination of choline], B., 331. Use of preparations containing phosphatides in manufacture of foods, B., 1080.
- Nottebohm, F. E., and Philippi, K., approximation of components of the ash of the milk of cow and sheep to those of blood, A., 848. Peculiarities of goat's milk and composition of goat's blood, A., 1319.
- Nottebohm, E., Herold A.-G., and Roth, H., rubber masses, (P.), B., 357.
- Novák, Jan, and Čech, V., phenol-formaldehyde resinification. II., B., 30.
- Novák, Jiří, structure of naphthalene and stilbene derivatives, A., 216.
- Novák, V., pretreatment of soils for mechanical analysis, B., 242.
- and Hruběš, P., comparison of methods of treatment of soil samples before mechanical analysis, B., 932.
- and Maláč, B., influence of potassium fertilisation on soil reaction and hay harvest, B., 279.
- Novakowski, A., compounds of high mol. wt. II. Butyl ethers of cellulose, A., 381. X-Ray study of modifications of phosphorus pentoxide, A., 891.
- See also Boratynski, K.
- Novelli, A. See Houssay, B. A.
- Novotelnov, N. V. See Horovitz-Vlassova, L. M.
- Novotny, E. E., Romieux, C. J., and Stokes, J. S., synthetic resin, (P.), B., 721.
- and Stokes, J. S., synthetic [resorcinol] resin, (P.), B., 78. Making a thermosetting [sheet-like] resinous product, (P.), B., 1020.
- Novy, F. G., jun., phenolphthalein eruption; causation, A., 852.
- Nowack Akt.-Ges., A., and Hessen, R., clear and transparent artificial resin masses, (P.), B., 79. Moulded articles, (P.), B., 357.
- and Sprenger, K., continuous production of moulding mixtures from artificial resins, (P.), B., 200.
- Nowacki, W., capillary systems. XII (2). Calculation of material content of homogeneous filter structures. I. Sphere planes and sphere layers as structural elements of homogeneous sphere lattices, A., 672. Non-crystallographic point-groups, A., 1002.
- See also Niggli, P.
- Nowak, P., behaviour of sulphur compounds in cable insulating oils, B., 213. Insulation substances for the cable industry, with special reference to cellulose esters, B., 972.
- See also Schaarschmidt, A.
- Nowatke, W. See Hrynakowski, K.
- Nowinski, W. W., relations between effects on animal growth of thymocrescin and thyroxine, A., 538.
- Nowotny, H. See Halla, F.
- Noyes, H. F., and Victor Chem. Works, handling gases containing phosphorus, (P.), B., 625.
- Noyes, W. A., types of chemical reactions, A., 468. Formation of alkyl nitrites in dilute solutions; butyl and amyl nitrites, A., 1141.
- and Forman, D. B., aldehyde-imide condensation. I. Reactions between aldehydes and acetamide, A., 1039.
- Noyes, W. A., jun. See Romeyn, H., jun.
- Noyons, E., extraction apparatus, A., 480.
- Noziczka, R. See Bauer, K.
- Nuccorini, F. See Ravenna, C.
- Nüssler, L. See Fischer, Hans.
- Nugey, A. L., cracking-still gases logical source of ethylene, B., 691.
- Nuka, P., solubility of nickel dimethylglyoxime, A., 138.
- Numano, S. See Akabori, S.
- Nungesser, P. P., apparatus for collecting and conveying dusts, (P.), B., 897.
- Nunn, C. T., aniline solubility of gasoline as index of anti-knock value, B., 136.
- Nusbaum, C., X-ray analysis of cold-rolling and recrystallisation in steel, B., 271.
- Nutt, H. G. See Prizer, E. L.
- Nutting, G. C. See Spedding, F. H.
- Nutting, H. S., Rowley, H. H., and Dow Chem. Co., decomposition of liquid hydrocarbons, (P.), B., 853.
- Nutting, L. See Rysséberghe, P. van.
- Nyankovskaja, R. N. See Pentegov, B. P.
- Nydahl, F., determination of potash requirement of arable soils, B., 981.
- Nye, R. D., and Smith Eng. Works, crusher, (P.), B., 129.
- Nyegaard & Co. A./S., antiscorbutic preparations, (P.), B., 205.
- Nygaard, E. M. See Kohler, E. P.
- Nygard, I. J., phosphate deficiency in Montana soils, B., 82.
- See also Burke, E.
- Nylén, P., structure of pyrophosphoric acid, A., 664.
- and Stelling, O., structure of hypophosphoric acid, A., 664.
- Nyrop, A., and Koefoed, Hauberg, Marstrand, & Helweg, A./S. Titan, concentration of [rubber] latex, (P.), B., 1022.
- Nyström, P. See Fischer, A.
- Nyurenberg, N., bright [oil] stocks, B., 137. Increase of heat transfer through radiation by increasing velocity of the circulating fluid, B., 943.

O.

- O.Y. Methods, Ltd. See Pyhäälä, E.
- Oakdale, V. O. See Blicke, F. F., and Thompson, J. J.
- Oakley, P. See Tullis, D. R.
- Oana, M., heart function. II. Influence on the function of extirpated toad heart of the skeletal muscle extract and potassium exposed to ultra-violet rays, Röntgen rays, and radium emanation, and characteristics of the active substance contained in the alcohol extract of the skeletal muscle. III. Controls, A., 87.
- Obenauer, K., habit and paragenesis of fluorspar, A., 589.
- Ober, B., Pagon, W. W., Pruett, G. L., Troxell, W. W., and Oberphos Co., phosphatic fertilisers, (P.), B., 936.
- Wight, E. H., and Oberphos Co., preparation of phosphatic fertiliser, (P.), B., 567. Acid phosphate [superphosphate], (P.), B., 625. Mixed fertiliser, (P.), B., 647. Phosphatic fertilisers, (P.), B., 681, 728. Ammoniation of phosphatic fertiliser, (P.), B., 728.
- Oberembt, H. See Bruchhausen, F. von.
- Oberfell, G. G., storing and utilising highly volatile liquids [gasoline], (P.), B., 661.
- See also Thomas, R. W.
- Oberg, S. A. See Dill, D. B.
- Oberg, T. See Johnson, J. B.
- Oberle, A., carbonaceous material, (P.), B., 1044.
- and Universal Oil Products Co., conversion of hydrocarbons, (P.), B., 456.

- Oberlin, *M.*,  $\beta$ -methylamino- $\alpha$ -m-aminophenyl-*n*-propyl alcohol, (P.), B., 251. Nuclear-substituted phenylaminoalkylcarbinols, (P.), B., 956.
- Obermer, *E.*, and Milton, *R.*, photometric method for analysis of urinary sulphur, A., 300. Micro-photometric method for determination of free cholesterol and cholesterol esters in blood-plasma, A., 733.
- Oberphos Co. See Anderson, *D. L.*, Ober, *B.*, and Waggaman, *W. H.*
- Oberst, *F. W.* See Raiford, *L. C.*
- Obinata, *I.*, and Schmid, *E.*, stretching of tin crystals, A., 667. X-Ray studies of antimony-lead and tin-lead alloys, A., 1238.
- and Wassermann, *G.*, X-ray examination of solubility of aluminium in copper, A., 771.
- Oblatt, *E. B.* See Krasnow, *F.*
- Oblinger, *D. B.*, and Union Mills Paper Manufg. Co., [insulating] paper, (P.), B., 503.
- Obo, *G.*, reticulo-endothelial system. II. Secretion of specific substances, A., 625.
- Obrastzov, *G. D.*, Minker-Bogdanova, *E. T.*, and Kalinnikova, *M. N.*, influence of emotional excitement on the composition of the blood, A., 1328.
- Obriadina, *E. M.* See Ushakov, *S. N.*
- O'Brien, *C. S.*, experimental cataract in vitamin-*B<sub>2</sub>* deficiency, A., 433.
- O'Brien, *J. J.* See Dietrichson, *G.*
- O'Brien, *J. R.* See Barnes, *H.*, Heard, *R. D. H.*, and Kinnersley, *H. W.*
- O'Brien, *W. J.*, and Glidden Co., pigment, (P.), B., 928.
- and Krebs Pigment & Color Corp., [titanium] composite pigment, (P.), B., 478.
- O'Brien Varnish Co. See Reece, *F. M.*
- Obryadchikov, *S. N.*, and Karaseva, *A.*, basic problems in connexion with rectification of oils, B., 453.
- O'Bryan, *H. M.*, absorption and dispersion of celluloid between 300 and 1000 Å., A., 112.
- Obukhov, *A. P.*, and Mikhailov, *M. N.*, absorption of hydrochloric acid by solutions of magnesium chloride, B., 144.
- O'Byrne, (*Miss*) *M. E.*, infra-red absorption spectra of alkaloids, A., 445.
- O'Callaghan, *J. A.*, and Cook, *S. G.*, determination of *o*-nitrotoluene in nitrocellulose powder by the immersion refractometer, B., 1086.
- Ocampo, *M.*, separation and determination of proteins of carabao milk as compared with those of Filipino mother's milk in the early period of lactation, A., 848.
- Ocaño, *A.* See Clavera, *J. M.*
- Occhialini, *A.*, and Ranghiasi, *G. M.*, simple photographic method of measuring the persistence of spectral lines, A., 44.
- Occhialini, *G. P. S.* See Blackett, *P. M. S.*, and Chadwick, *J.*
- Ochiai, *E.* See Pfeiffer, *P.*
- Ochmann, *W.*, influence of nitrogenous nutrition on spore formation in six yeasts, A., 95. Staining of the spores of the *Schizosaccharomyces*, A., 95.
- Ochoa, *S.* See Dudley, *H. W.*
- O'Connor, *J. J.*, and Mead Corp., paper, (P.), B., 545.
- O'Connor, *T.*, rotary pulp screen, (P.), B., 608.
- Oda, *R.*, esterification. II. Esterification of olive oil and carboxylic acids, A., 806. Ester-interchange. II. Effect of solvent, catalyst, and pressure on reaction of fatty oils with ethylene glycol or glycerol; industrial application of the products. IV. Ester-interchange between two fats, and between ethylene glycol and a mixture of two fats. V. Ether-interchange. VI. Ester-interchange between fatty oils, fatty acids, and ethylene glycol. VII. Interaction of castor oil with mono- and tri-chloroacetic acid. VIII. Interaction of castor oil and polycarboxylic acids, A., 933, 1275; B., 476. Position of fission of chemical linkings in unsaturated compounds, A., 1270. "Umesterung" [double decomposition]. I. Double decomposition of fatty oils with alcohols, and preparation of alcohol-soluble boiled oils and a new emulsifier, B., 197.
- and Nomamoto, *S.*, extension of Otto Schmidt's double linking rule, A., 256.
- Oda, *S.*, and Osuka, *T.*, [physiological] action of copper, A., 423.
- See also Shibata, *F. L. E.*
- Oda, *T.* See Shimizu, *T.*
- O'Daniel, *H.*, potassium and cuprous ferric sulphides, A., 1106.
- Oddo, *B.*, [syntheses by means of magnesylpyrroles]; pyrroles and indoles. Series II. XVI. Action of alkyl halides on magnesylindole, A., 835.
- and Alberti, *C.*, [syntheses by means of magnesylpyrroles]; pyrroles and indoles. Series II. XVII. Syntheses of 2:3-dialkylindoles, A., 835.
- and Ingrassia, *F.*, glyoxaline group. V. Some benzimidazole derivatives and the opening of the glyoxaline ring, A., 285.
- Oddo, *G.*, frequency of the elements and constitution of the nucleus of atoms. II. Twenty years in the history of an observation and of a hypothesis, A., 996. Combining power of krypton and of xenon, A., 1027.
- and Caronna, *G.*, [solanine]. IX. [*Solanum tuberosum* solanine (*t*-solanine)], A., 379.
- and Indovina, *R.*, [diazo-compounds]. IV. Catalytic effect of alizarin on the decomposition of diazo-compounds. V. Stabilisation of diazotates, A., 388.
- Odell, *A. F.*, new process of physical development [of plates and films] B., 572. Physical development of plates, films, and lantern slides, B., 813.
- Odell, *J. H.* See Work, *L. T.*
- Odell, *W. W.*, enriched producer gas, (P.), B., 339. Water-gas or producer gas, (P.), B., 377.
- See also Brown, *Ralph L.*
- Odén, *S.*, and Wijkström, *T.*, electrodialysis applied to soils, B., 560.
- Odland, *T. E.*, and Crandall, *F. K.*, effect of lack of available manganese in the oils on crop yields, B., 36.
- O'Dwyer, (*Miss*) *M. H.*, hemicelluloses of wood, A., 55.
- Ödman, *O. H.*, non-transparent minerals in the lavas of Mt. Elgon, British E. Africa, A., 589.
- Oehme, *C.*, Paal, *H.*, and Kleine, *O.*, activity of the thyreotropic hormone of the anterior lobe of the pituitary, and Reid Hunt reaction, A., 869.
- Oehme, *H.*, and Chem. Fabr. Kalk G.m.b.H., zinc hydrocarbonate, (P.), B., 386.
- See also Chem. Fabr. Kalk G.m.b.H.
- Ölander, *A.*, electrochemical investigation of solid cadmium-gold alloys, A., 29. Electrochemical investigation of cadmium-silver alloys, A., 230. Electrochemical investigation of brass, A., 771. Entropy in intermediate phases, A., 895.
- Oelkers, *H. A.*, pharmacology of cocaine. III. Action in the organism, A., 633. Formation of globulin from albumin by heparin, A., 1182.
- and Raetz, *W.*, pharmacology of cocaine. II. Fate in the animal body, A., 633.
- Raetz, *W.*, and Rintelen, *K.*, determination of alkaloids, especially atropine, in the animal body, A., 185.
- Oelsen, *W.* See Körber, *F.*
- Öno, *M.* See Takei, *S.*
- Oenslager, *G.*, development of organic accelerators for rubber vulcanisation, B., 200.
- Oerin, *S.* See Kauffmann-Cosla, *O.*
- Ørskov, *S. L.*, ether-soluble acids of the blood, A., 81. Lactic and total ether-soluble acids in the blood of dogs on various diets, A., 81. Lactic acid transformability of muscle and liver, A., 88. Significance of carbon dioxide in diffusion of ammonium salts through the blood corpuscle-membrane, A., 1315.
- Østberg, *O.*, citric acid content of urine and its variations in abnormal conditions, A., 300.
- Østby, *O.* See Jermstad, *A.*
- Oesterle, *J. F.* See Fritsche, *O. O.*, and Wahlen, *H. B.*
- Oesterlin, *M.*, determination of chlorine and bromine in organic compounds, A., 80.
- Oesterreicher, *W.*, determination of sexual hormones (anterior pituitary and follicular) in health and in mental and nervous disease. I., A., 1337.
- Österreichische Amerikanische Magnesit Akt.-Ges., multiple alloys of magnesium with zinc and aluminium, (P.), B., 272.
- Oesterr. Chemische Werke G.m.b.H., treatment of seeds, (P.), B., 681.
- Oetjen, *J. H.* See Krueger, *R. H.*
- Oelken, *F. A.* See Metallges. A.-G.
- Oettingen, *W. F. von*, and Bowman, *R. O.*, physico-chemical properties of new choline derivatives in relation to their chemical constitution and pharmacological action, A., 978.
- Ofenbau-Ges.m.b.H., and Bangert, *H.*, ball or tube mills, (P.), B., 945.
- Offord, *R. J.* See Rosewarne, *P. V.*
- O'Flaherty, *F.*, and More, *E. K.*, disposal of [hide and skin] fleshings, B., 1070.
- and Roddy, *W. T.*, beetles and their damage to hides and leather, B., 642.
- Ofner, *R.*, Herzfeld's method of determining reducing sugars compared with the iodometric method, B., 1076. Determination of invert sugar in sugar-factory products, B., 1076.
- and Gračko, *I.*, iodometric determination of invert sugar in first raw sugars, B., 166.
- Oftstad, *B.*, anterior pituitary hormone in saliva, A., 1210.
- Ogata, *A.*, and Hirano, *S.*, male hormone from pigs' testicles, A., 1211.
- Ogata, *T.*, cyanine dyes. IV. Penta- and hepta-methine-cyanine. V. Lepidyl-, quinaldyl-, and picolyl-carbocyanines, A., 285, 402.

- Ogata, Y. See Komatsu, S.  
 Ogawa, M. See Okuda, Y.  
 Ogawa, T., hydrogenation of Fushun coal, B., 178.  
 Ogburn, S. C., jun., and Brastow, W. C., determination of palladium by means of ethylene, A., 585.  
 Ogden, D. L., and Amer. Metal Co., recovery of zinc compounds from ammoniacal solutions, (P.), B., 146.  
 Ogden, E. See Simpson, W. W.  
 Ogg, R. A., jun., Leighton, P. A., and Bergstrom, F. W., photolysis of solutions of alkali metals in liquid ammonia, A., 682.  
 Oglesby, N. E., Ehrenfeld, D., and Federal Laboratories, Inc., making a composition for producing irritating gas, (P.), B., 413.  
 Ogura, M., heat test for specification of Chinese wood oil, B., 797.  
 Ogura, T., contact-metamorphism by syenite-gneiss in the Lao tieh shan district near Ryojun, S. Manchuria, A., 141.  
 See also Oguri, S.  
 Oguri, S., hygroscopic moisture of cellulose. IX. Hygroscopic moisture of silk and wool. X. Velocity of sorption of water vapour on cellulose. XI. Mechanism of adsorption of water vapour by cellulose. XII. Determination of hygroscopic moisture of various cellulose products, A., 121, 564; B., 185, 1002. Chemical investigations of bamboo cellulose. VII. Water-soluble content of bamboo. VIII. Optical properties of bamboo cellulose. X. X-Ray study of bamboo cellulose. XI. Adsorption from aqueous solutions by bamboo charcoal, B., 13, 459, 611.  
 and Ogura, T., composition of bamboo. VI. Water-soluble constituents, A., 328.  
 Oh, H. Y., etiology of beri-beri, A., 627.  
 and Kim, C. H., amount of calcium excreted in the urine of healthy Koreans, A., 300.  
 O'Hara, F. J., and Taylor, M. E., antigenic proteins of *Salmonella aertrycke*, A., 318.  
 Ohara, K., fine structure of silk. I.—IV., A., 849.  
 Ohio Rubber Co. See Flemming, C. F.  
 Ohio Sanitary Engineering Corporation. See Griessbach, R., and Travers, J. T.  
 Ohio Steel Foundry Co. See Ziegler, F. K.  
 Ohira, T., kempferol rhamnoside from leaves of *Pueraria hirsuta*, Matsumura, I., A., 1216.  
 Ohl, F., thread-forming properties of cellulose acetates, B., 223.  
 Ohle, H., and Deplanque, R., synthesis of a C<sub>6</sub> sugar by isomerisation of diisopropylideneglucose, A., 148.  
 and Thiel, H., acetone [isopropylidene] derivatives of sugars and the products of their transformation. XVIII. d-Galactose 6-p-toluenesulphonate and 3:6-anhydro-d-galactose, A., 492.  
 Ohle, W., chemico-stratigraphical investigation of sediment metamorphosis of a forest lake, A., 481.  
 Ohler, H., dried apple residues, B., 409.  
 Ohlinger, H. See Ziegler, K.  
 Ohlmeyer, P., and Pringsheim, H., inulin and inulinases. XIII., A., 1147.  
 Ohlsson, E., and Edfeldt, O., takadiastase. II. Inactivation by heat and reactivation, A., 748. Amylases in resting and germinating seeds. III. Oats, A., 1343.  
 Ohlsson, E., and Uddenberg, C. E., amylases in resting and germinating seeds. II. Rye, A., 1343.  
 Ohm, W. See Paffrath, H.  
 Ohmi, F., effect of sensory stimulation on blood-sugar content of rabbits, splachnicotomised or suprarenalctomised, A., 979.  
 Ohmiya, S., enzymic hydrolysis of hexoside phosphate, A., 1203.  
 Ohno, H., influence of operating conditions on coke-oven by-products, B., 611.  
 Ohsako, H. See Asakura, K.  
 Ohsugi, S. See under Osugi, S.  
 Ohta, T. See Nakamura, Harukiti.  
 Ohta, Z. See Asano, M.  
 Ohtahara, K., combining and inhibition zones in immuno-reactions and colloidal reactions, A., 624.  
 Oil Conservation Engineering Co. See Tennent, A. H.  
 Oil Corporation of America. See Darling-ton, H. T.  
 Oil Reclamation Co. See Main, J. S.  
 Oils and Fats Sub-Committee of the Standing Committee on Uniformity of Analytical Methods, report on determination of unsaponifiable matter in oils and fats and of unsaponified fat in soaps. I. Determination of unsaponifiable matter in oils and fats, B., 434.  
 Oinuma, S. See Nakashima, I.  
 Oka, S., Manchurian coals, B., 178.  
 Oka, Shumpei, transport numbers in membranes, A., 467. Change of transport numbers in a membrane due to concentration of electrolyte, and a theory of transport number in the pores of a membrane, A., 571.  
 Oka, Sojiro, transparent crystals of potassium halides, A., 662.  
 and Yagi, S., fluorescence of "special salt," A., 662.  
 Okabe, N. See Miura, M.  
 Okáč, A., micro-electrolytic determination of iron, A., 43. Stirring of the bath by bubbling of gas in micro-electroanalysis, A., 140.  
 Okada, H., Hayakawa, E., and Umeda, Z., sulphite cooking with special reference to viscosity of the cellulose, B., 742.  
 Okada, Y. See Bertrand, G.  
 Okami, K. See Asahina, Y.  
 Okamoto, T. See Kotake, M.  
 Okamoto, Z. See Sinozaki, H.  
 Okamura, I., fractionation of ethylcellulose, A., 1280. Action of caustic liquor on native and mercerised cellulose, B., 780.  
 Okamura, K. See Shibata, R.  
 Okamura, Tamotsu. See Kondō, M.  
 Okamura, Toshihiko, effect of a magnetic field and of temperature on the specific heat of gases, A., 1237.  
 Okamura, Z. See Ueno, Sei-ichi.  
 O'Kane, W. C., and Westgate, W. A., contact insecticides. IV. Sodium soaps of the normal saturated fatty acids, B., 37.  
 Westgate, W. A., and Glover, L. C., contact insecticides. V. Performance of contact agents on various insects, B., 37.  
 See also Hartzell, A.  
 Okawa, H. See Saito, D.  
 Okazaki, K. See Tatsumi, Y.  
 O'Keeffe, G. W., washing of cake on continuous filters, B., 1.  
 O'Keeffe, J. G. See Nolan, J. J.  
 Okey, R., and Stewart, D., diet and blood-cholesterol in normal women, A., 417.  
 Oki, H. See Kuroki, K.  
 Okii, I., influence of bile acids on calcium metabolism. VII. Calcium and phosphorus balance in dogs receiving bile acids, A., 1196.  
 Okinaka, S. See Kuré, K.  
 Oku, Masami, pigment of cocoon silk of silkworm. III. M.p. of cocoon xanthophyll. IV., A., 84; B., 663.  
 Oku, Mitsugu, p.d. between copper and its amalgam and reproducibility of the copper electrode, A., 909.  
 See also Ishikawa, F.  
 Okubo, J., and Hamada, H., active nitrogen, A., 205. Nature of dark modification of active nitrogen, A., 205. Modification of intensity in the band spectrum of nitrogen, A., 1095.  
 and Matuyama, E., band spectra superimposed on continuous spectra of mercury in the visible region, A., 992.  
 Okuda, A. See Sioiri, M.  
 Okuda, T., absorption of the Is—3d lines by potassium, A., 655.  
 Okuda, Y., and Ogawa, M., determination of glutathione in tissues, A., 1184.  
 Okunev, N., regeneration. IV. Oxidation-reduction potential of tissue of regenerating extremity of the axolotl, A., 181. Physico-chemical phenomena during regeneration. V. Lactic acid content of regenerating extremities in axolotl, A., 305.  
 Okuno, T., Masumi, T., and Fukuyama, M., preparation of sodium sulphide from sodium sulphate and its causticisation, B., 864.  
 Okuyama, D., tyrosinase. II. Colloid-chemical behaviour of the tyrosinase reaction, A., 92.  
 Okuyama, M., lactic acid formation in liver cells, A., 419.  
 See also Shibata, R.  
 Olay, E. See Madinaveitia, A.  
 Olcott, H. S., and Mattill, H. A., antioxidant of lettuce, A., 876.  
 Olcovich. See under Olcott.  
 Old Ben Coal Corporation. See Greene, F. C.  
 Oldeman, J. See Ornstein, L. S.  
 Oldenberg, O., electron affinity spectrum, A., 549.  
 Oldershausen, E. von, influence of artificial acidification on soils and plant growth, B., 517.  
 See also Blanck, E.  
 Oldham, S. R. See Linde Air Products Co.  
 Oldham & Son, Ltd., and Wilde, W. D., galvanic batteries [particularly for miners' lamps], (P.), B., 236. [Cases for] galvanic batteries, (P.), B., 274.  
 O'Leary, (Miss) A. See Bassett, H. L.  
 O'Leary, A. J. See Sargent, B. W.  
 O'Leary, L. A., and Wenzke, H. H., reactions and properties of boron fluoride in methylalcohol, A., 695.  
 Olie, J., and Brouwer, G., evaluation of tanning materials for tanning fishing nets, B., 980.  
 Olin, H. L. See Claussen, R. A., and Fogle, M. E.  
 Olin, J. M., Schuricht A.-G., and Western Cartridge Co., finishing of gun barrels, (P.), B., 814.  
 Olinger, M. See Le Thomas, A.



- Oliphant, *M. L. E.*, heavy hydrogen in contact with normal water, A., 1233.
- Kinsey, *B. B.*, and Rutherford, (*Lord*), transmutation of lithium by protons and by ions of the heavy isotope of hydrogen, A., 1100.
- and Rutherford (*Lord*), transmutation of elements by protons, A., 883.
- Oliva, *E.* See González Núñez, *F.*
- Oliveira, *J. M.* See Godfrey, *G. H.*
- Oliver, *A. F.*, Palmer, *R. C.*, and Newport Industries, Inc., purification of resins, (P.), B., 677. Preparation of high-m.p. rosin, (P.), B., 677.
- Oliver, *C. B.*, Vallet, *V. E.*, and Oliver United Filters, Inc., cement, (P.), B., 917.
- Oliver United Filters, Inc., continuous filters, (P.), B., 255.
- and Hillier, *G. O.*, filters, (P.), B., 529.
- See also Campbell, *R. C.*, Hillier, *G. O.*, Moore, *C. W.*, and Oliver, *C. B.*
- Oliverio, *A.*, preparation of 3:4-dimethoxycinnamic acid, A., 392.
- Olivier, *S. C. J.*, and Weber, *A. P.*, formation of an intermediate in the action of phosphorus pentachloride on aldehydes, A., 393.
- Ollano, *Z.*, ions of the type  $M(OH)_p^{z+}$  in the Raman effect, A., 1103.
- See also Brunetti, *R.*
- Olpin, *H. C.* See Brit. Celanese.
- Olsen, *A. G.*, pectin. I. Citrus pectin, B., 650.
- Olsen, *F.*, purification of nitrocellulose, (P.), B., 825.
- Olsen, *G. E.*, cleaning of fabrics, (P.), B., 225.
- Olsen, *J. C.*, [formation of phosgene in thermal decomposition of carbon tetrachloride], A., 683.
- Ferguson, *G. E.*, and Scheflan, *L.*, gases from thermal decomposition of common combustible materials, B., 690.
- Olsen, *N. S.*, and Universal Oil Products Co., vapour condensation, (P.), B., 289.
- Olsen, *S. D.*, and King, *W.*, apparatus for producing emulsions, etc., (P.), B., 609.
- Olshevskaja, *E. D.* See Lakomkin, *I. G.*
- Olson, *A. R.*, and Brittain, *F. W.*, heat capacities of *cis*- and *trans*-dichloroethylenes, A., 1237.
- and Hudson, *F. L.*, photo-stationary states of geometrically isomeric acids, A., 557.
- Olson, *H. C.*, and Hammer, *B. W.*, agar disc method for studying [bacterial] contamination from metal surfaces, B., 650. Bacteriology of butter. V. Micro-organisms in churns, B., 730.
- Olson, *T. A.*, interrelationships of sunlight, aquatic plant life, and fishes, A., 1028.
- Olszewski, *B.*, and Renescu, *N. E.*, fate of chloral hydrate in the organism, A., 310.
- Olthoff, *J.*, and Sawyer, *R. A.*, extension of the first spark spectrum of caesium (Cs II), A., 200.
- Oltman, *R. E.*, method and instrument for determination of chlorophyll, A., 873.
- Omaki, *T.* See Asahina, *Y.*
- O'Malley, *G. B.* See Greenwood, *J. N.*
- O'Malley, *L. J.*, selective separation of ores [by flotation], (P.), B., 873.
- Ominin, *L. V.*, and Popova, *V. T.*, utilisation of pyrophyllite in porcelain and faience, B., 916.
- Ommyoji, *M.*, effects of various organ preparations on the growth of tissue *in vitro*. I. and II., A., 631.
- Omori, *T.*, heavy metal catalysts. II. Influence of cystine on artificial peroxidases, A., 357.
- Onceley, *L. J.*, and Williams, *John Warren*, frequency variation of the dielectric constant of dilute non-aqueous solutions, A., 447.
- O'Neal, *A. M.*, Hurst, *L. A.*, and Breaux, *S. J., jun.*, fertiliser requirements of sugar cane on Yazoo, very fine sandy loam in Louisiana, B., 202.
- Oneida Community, Ltd. See Gray, *D.*, McCutcheon, *F. G.*, and Murray, *W. S.*
- O'Neil, *A. S.*, Schuricht, *A. G.*, and Western Cartridge Co., [tetranitroaniline] explosives, nitrocellulose explosives, and blasting stick, (P.), B., 94.
- and Western Cartridge Co., nitrocellulose powders, (P.), B., 990.
- O'Neill, *H.*, Farnham, *G. S.*, and Jackson, *J. F. B.*, heat treatment of "standard silver," B., 970.
- Onitchenko, *A.*, measurement of throwing power of galvanoplastic baths, B., 1062.
- Ono, *K.* See Sobue, *H.*
- Ono, *T.*, shark-egg oil, B., 76.
- See also Arakawa, *B.*
- Onsager, *L.*, and Fuoss, *R. M.*, irreversible processes in electrolytes; diffusion, conductance, and viscous flow in arbitrary mixtures of strong electrolytes, A., 28.
- Ontario Research Foundation, apparatus for testing the fastness to light of dyes, inks and other colour materials, (P.), B., 458.
- Onuki, *M.*, constitution of stachyose, A., 378.
- Ooi, *F.*, effect of intraperitoneal blood transfusion on various characteristics of blood, A., 846.
- Oosaka, *H.*, cryoscopic studies on transition points of the compounds of organic solvents with salts. II., A., 347.
- Oosterhof, *D.* See Waterman, *H. I.*
- Oosterhuis, *A. G.* See Wibaut, *J. P.*
- Oostveen, *W.*, treatment of carbon [for use as pigment] obtained by decomposition of a carbon-containing gas in the presence of a metal-containing catalyst, (P.), B., 78.
- Oosugi. See under Osugi.
- Ootsubo, *Y.* See Kamamoto, *K.*
- Opalsky, *H.*, improvement of cement, cement-mortar, and concrete, (P.), B., 549.
- Oparin, *A.*, Djatschkov, *N. N.*, Glazunov, *I. V.*, and Ivanova, *T. M.*, biochemical processes in the sugar beet during storage, B., 761.
- and Kursanov, *A.*, effect of  $pH$  on activity of amylase, A., 187.
- and Manskaja, *S.*, inactivation of amylase by heat, A., 634.
- Manskaja, *S.*, and Magaram, *M.*, effect of coagulation of accompanying proteins on the activity of amylase, A., 1202.
- Opienska-Blauth, *J.*, iodometric determination of mercury in organic compounds, A., 408.
- Opitz, *K.*, influence of climate on properties of German cereals, B., 360. Inference of time on serviceability of rye seed in the seedling method [of soil examination], B., 726.
- and Rath sack, *K.*, importance of time of sowing in pot cultures of oats, especially in determination of  $b$  [Mitscherlich], B., 803. Manuring and control of plant-nutrient content of a light sandy soil, B., 839.
- Opitz, *K.*, Rath sack, *K.*, and Göpp, *K.*, liberation of soil nutrients by cultivation, B., 1026.
- Oplatka, *G.*, determination of static dielectric constant of sodium potassium tartrate, A., 447.
- Oppen, *E.*, and Internat. Precipitation Co., gaseous catalyst [nitric oxide], (P.), B., 267.
- Oppenauer, *R.* See Reichstein, *T.*
- Oprean, *R.* See Nitescu, *I. I.*
- Opstall, *H. J. van*, reaction velocities of 1-chloro-2:4-dinitrobenzene and 1-chloro-2:4-dinitronaphthalene with aromatic amines, A., 1250.
- Opuhtina, *M. A.* See Palkin, *A. P.*
- Oram, *J. E.* See Wild-Barfield Electric Furnaces, Ltd.
- Orbán, *G.*, refraction of X-rays by glass, A., 1233.
- Oreel, *J.*, and Caillère, (*Mlle.*) *S.*, differential thermal analysis of montmorillonite clay (bentonites), A., 1268.
- Orchard, *W. J.* See Wallace & Tiernan Co.
- Orékhov, *A.*, *Sophora* alkaloids. III. Alkaloids of foliage of *Sophora alopecuroides*, A., 840. Alkaloids of *Berberis heteropoda*, A., 961. New alkaloids from Russian flora, B., 172.
- and Brodski, *D. A.*, alkaloids of *Anabasis aphylla*. VI. Hydrogenation of anabasine, A., 517.
- and Konovalova, *R. A.*, alkaloids of *Convolvulus pseudocantabricus*, Schrenk. I., A., 517. Alkaloids from *Leontice eversmanni*, A., 652.
- Norkina, *S.*, and Gurevitch, *H.*, *Sophora* alkaloids. II. Alkaloids of *Thermopsis lanceolata*, A., 617.
- and Proskurnina, *N.*, alkaloids of *Salsola Richteri*, A., 727.
- Rabinovitch, *M.*, and Konovalova, *R. A.*, *Sophora* alkaloids. I. Alkaloids of the foliage of *S. pachycarpa*, A., 617.
- Orel, *V. F.* See Mintz, *I. B.*
- Orelup, *J. W.*, dihydroxyanthraquinone and its derivatives, (P.), B., 221.
- Orent, *E. R.* See Kruse, *D. H.*
- Orestano, *G.*, kinetic study of liquefaction and enzymic saccharification of starch. II. Pancreatic amylase, A., 313. Liquefaction and saccharification of starch by the action of amylases of different origin, A., 1330.
- Orestov, *V. A.*, [coal deposits in the Barzas district], A., 589.
- Orgaz, *J.*, De Ipola, *R. V.*, and Bua, *R. F.*, use of maté tea for determination of acidity of gastric juice, A., 849.
- Oriel, *G. H.*, biochemistry of asthmatic conditions with special reference to the urinary "protease," A., 1069.
- Orlandi, *U.*, and Levi, *G.*, process for concentrating nitric solutions and denitrifying nitric-sulphuric acid mixtures, (P.), B., 17.
- Orleman, *C. W.* See Dietrichson, *G.*
- Orlov, *A.*, petrography of the Čistá-Jechnitz granite massif, Bohemia, A., 692.
- Orlov, *J. E.*, quantitative separation of manganate and permanganate, A., 138.
- Orlov, *N. A.*, and Lichatshev, *N. D.*, humic substances. III. Oxidation of humic substances obtained from phenols, A., 819.
- and Tishchenko, *V. V.*, humic substances. IV. Humification of paraffin, B., 613.

- Orlov, *N. N.*, and Bogdanov, *G. M.*, synthesis of 8-ethoxyquinoline-5-sulphonic acid, A., 400.
- Orlov, *R. N.* See Braun, *A. A.*
- Orlov, *S. S.* See Ryss, *I. G.*
- Orlova, *E. N.* See Palkin, *A. P.*
- Orlovski, *N. I.*, influence of artificial reduction of leaves on yield of sugar beets, B., 323.
- Ormond, *J. van.* See Gorter, *E.*
- Ormston, *J.* See Clemo, *G. R.*
- Orne, *S. W.*, and Nat. Carbon Co., arc-lamp electrode, (P.), B., 396.
- Orno-Ornfeldt, *E.*, and Loew, *M.*, improved South American maté, (P.), B., 683.
- Ornstein, *G.*, treatment of sewage, (P.), B., 1038.
- Ornstein, *I.* See Parhon, *C. I.*
- Ornstein, *L. S.*, Brinkman, *H.*, and Beunes, *A.*, verification of Compton's arc theory by measurement of the arc gas temperature at different pressures, A., 548.
- and Burger, *H. C.*, intensity ratio of Balmer to Paschen lines. II., A., 759.
- and Kast, *W.*, swarm theory of liquid crystals, A., 1108.
- Kast, *W.*, and Bouma, *P. J.*, liquid crystal character of dipole liquids at the m.p., A., 338.
- and Key, *J.*, transition probabilities in the subsidiary series of Na, A., 1220.
- and Langstroth, *G. O.*, excitation of band systems. I., A., 759.
- and Lindeman, *H.*, excitation functions of atomic hydrogen, A., 331.
- Lindeman, *H.*, and Oldeman, *J.*, excitation function of the mercury resonance line 2537, A., 760.
- and Stoutenbeek, *P.*, depolarisation of Raman radiation by liquids, A., 1228.
- and Vreeswijk, *J. A. jun.*, intensity ratio for the boron isotopes B<sup>10</sup> and B<sup>11</sup>, A., 204.
- and Went, *J. J.*, the overtone  $\Delta\nu=1539$  in the Raman spectrum of carbon tetrachloride, A., 7.
- Went, *J. J.*, and Aten, *A. H. W. jun.*, dependence of Raman radiation from quartz on the frequency of the exciting radiation, A., 764.
- and Wijk, *W. R. van.*, optical investigations of the accommodation coefficient and distribution function for molecular translation at low pressures, A., 1. Optical investigation of collisions of gas molecules with a wall, A., 1.
- See also Ginsel, *L. A.*, and Jenkins, *F. A.*
- Orowan, *E.*, Zwicky's theory of the structure of real crystals, A., 115. Tensile strength of mica and problem of technical strength, A., 667.
- Orr, *A. B.*, liquid clarifier, (P.), B., 370.
- Orr, *T. G.*, Johnstone, *P. N.*, and Rice, *B.*, chemical changes in blood of the dog in experimental acute pancreatitis, A., 853.
- Orr, *W. J. C.*, and Butler, *J. A. V.*, partial molecular polarisation in solutions, A., 19.
- Orr, *W. V.*, centrifugal dryer, (P.), B., 207.
- Ort, *J. M.*, active reductant of glucose and first steps in its oxidation, A., 54.
- Orten, *J. M.*, Underbill, *F. A.*, Mugrage, *E. R.*, and Lewis, *R. C.*, manganese in cobalt polycythemia, A., 312. Blood-volume in cobalt polycythemia, A., 312.
- See also Geraghty, *G. B.*, and Underhill, *F. A.*
- Orth, *H.* See Fischer, *Hans.*
- Orth, *P.* See Ziegler, *K.*
- Orthmann, *A. C.*, and Vogel, *C. P.*, [water-proof] leather, (P.), B., 515.
- See also Du Pont de Nemours & Co., *E. I.*
- Orthner, *L.*, and Gerisch, *E.*, primary stages in conversion of formaldehyde into carbohydrates, A., 491.
- and Hein, *R.*, stereochemistry of organic compounds. III. Spatial configuration of aliphatic and alicyclic amino-acids, A., 939.
- Ortiz, *G. S.*, blood-urea clearance test, A., 973.
- Osann, *B. jun.*, and Schröder, *E.*, temperature measurements with tungsten-molybdenum thermocouples, B., 895.
- Osawa, *M.*, fatigue of skeletal muscle, A., 182.
- Osborg, *H.*, [deoxidation and desulphurising] treatment of metals or alloys [of copper, nickel, iron, etc.], (P.), B., 714. Scavengers or improvers for use in treatment of molten metals and alloys, (P.), B., 714. Compositions containing lithium and silicon, (P.), B., 714.
- Osborn, *A. C. jun.*, gas cupola furnace, (P.), B., 631.
- Osborn, *O. L.*, Wood, *H. G.*, and Werkman, *C. H.*, determination of formic, acetic, and propionic acids in a mixture, A., 933.
- Osborn, *R. A.*, and Krasnitz, *A.*, Kjeldahl method. I. Mercuric oxide as a catalyst when block tin condensers are used. II. Comparison of selenium with mercury and with copper catalysts, A., 520.
- and Sterling, *A. G.*, chain arrangement for rubber stoppers, A., 926.
- Osborn, *S. J.* See Edwards, *A. H.*
- Osborn, *T. W. B.*, influence of cod-liver oil on haemolytic complement of human beings, A., 1317.
- Osborn Products, Inc. See Bozarth, *W. H.*
- Osborne, *E. N.* See Hurd, *C. D.*
- Osborne, *F. F.*, plane-polarised light in microscopical investigation of ores and metals, A., 1026.
- Osborne, *N. S.*, Stimson, *H. F.*, Fiock, *E. F.*, and Ginnings, *D. C.*, pressure of saturated water vapour in the range 100–374°, A., 453.
- Osborne, *W. B.* See Gould, *W. S.*
- Osborne, *W. M.*, dirt content of [wood] chips, B., 742.
- Osbourne, *A.*, regulating viscosity of [liquid] materials, (P.), B., 177.
- Oschman, *V. A.* See Iljin, *B. V.*
- Ose, *I.*, minor constituents of the sweet potato. I., A., 990.
- Oseen, *C. W.*, theory of liquid crystals, A., 1108.
- Oserkowsky, *J.*, relation between green and yellow pigments in chlorotic leaves, A., 330. Relation between chlorophyll and iron in green and chlorotic pear leaves, A., 1217.
- Osgood, *E. E.* See Campbell, *R. A.*
- Osgood, *T. H.*, L-X-ray spectrum of solid aluminium, A., 1221.
- O'Shaughnessy, *F. R.* See Whitehead, *H. C.*
- Oshima, *M.*, reduction of urobilin to urobilinogen in the body, with special reference to the kidneys, A., 534.
- Oshima, *Yasuyoshi.* See Yamamoto, *R.*
- Oshima, *Yoshikiyo.* and Fukuda, *Y.*, coke and charcoal. XIV. Correction of volatile matter in combustion characteristics of carbon materials, B., 736.
- Oshima, *Yoshikiyo.* Fukuda, *Y.*, and Miyanaga, *K.*, free carbon in pitch. I. Preparation of free carbon, B., 738.
- Fukuda, *Y.*, and Takashima, *S.*, formation of C<sub>2</sub>O<sub>2</sub> by wet oxidation of carbon, A., 794.
- Osinskaja, *V.* See Utevski, *A.*
- Osipov, *R. S.*, determination of sulphur-black dye on the fibre, B., 59.
- Oskamp, *J.*, and Batger, *L. B.*, physical and chemical properties of the soils of the Hilton and Morton areas, Monroe County, and their relation to orchard performance. III., B., 981.
- Osmer, *J. H.*, Craise, *F. L.*, and Standard Oil Co. of California, treatment [desludging] of [petroleum] oils, (P.), B., 378.
- and Standard Oil Co. of California, treatment of hydrocarbon oils with aluminium chloride, (P.), B., 694.
- See also Halloran, *R. A.*
- Ossipova, *V. P.* See Schorigin, *P. P.*
- Osswald, *E.*, stretching experiments on copper-nickel crystals, A., 768.
- See also Dehlinger, *U.*
- Ost, *J.* See Spengler, *O.*
- Osteen, *J. A.*, resistance-temperature relation of beryllium oxide and zinc oxide, A., 217.
- Oster, *J.*, apparatus for determination of solvents and diluents in oil paints and enamels, B., 77.
- Osterberg, *A. E.*, Vanzant, *F. R.*, and Alvarez, *W. C.*, gastric pepsin. I. Methods of measurement and factors which influence it, A., 1068.
- See also Vanzant, *F. R.*
- Osterberg, *H.* See Roebuck, *J. R.*
- Osterhof, *H. J.* See Bartell, *F. E.*
- Osterhout, *W. J. V.*, kinetics of penetration. V. Kinetics of a model as related to the steady state, A., 347.
- and Hill, *S. E.*, anaesthesia produced by distilled water, A., 1215. Anaesthesia in acid and alkaline solutions, A., 1215. Reversible loss of potassium effect in distilled water, A., 1215.
- Ostermann, *W.*, and Travis Process Corp., colloid mill, (P.), B., 769.
- Ostern, *P.*, mechanism of deamination in heart and skeletal muscle, A., 187. Determination of oxalacetic acid, A., 964.
- and Mann, *T.*, mechanism of deamination in heart and skeletal muscle, A., 742.
- Osterrieth, *J. E.*, organic compounds from coke-oven gas, B., 417.
- Osterstrom, *R. C.*, and Pure Oil Co., treating [cracked, low-boiling, unsaturated] hydrocarbons, (P.), B., 500. Oil-purifying system, (P.), B., 616. [Thermal] methods of polymerising unsaturated hydrocarbon oils, (P.), B., 616. Purification of [hydrocarbon] oils, (P.), B., 903.
- Tucker, *R. T.*, and Pure Oil Co., treating [refining] oil, (P.), B., 580.
- Wagner, *C. R.*, and Pure Oil Co., [thermal] method of treating cracked petroleum distillates, (P.), B., 616.
- Ostromisslenski, *I.*, Gibbons, *W. A.*, and Naugatuck Chem. Co., vitreous polymerised styrene from mixtures of styrene with materials, (P.), B., 317.
- and Pyridium Corp., azo-compound from 2-amino-6-benzenediazoaminopyridine, (P.), B., 251.

- Ostroschinskaja, G. I., and Koslova, N. A., hydrolysis of the urea of J-acid, B., 421.
- Ostroumov, V. V. See Alexeev, D. V.
- Ostrowska, M., and Menciński, J., effect of small amounts of superphosphate on growth of plants receiving phosphorite as a fertiliser, B., 562.
- Ostwald, Walter, recent developments in motor fuels and in engines for motor transport, B., 948.
- Ostwald, Wolfgang, films, threads, and colloid science, A., 21. Nature of critical state in the transition liquid-gas, A., 770. Raising the solubility of dyes by neutral salts, A., 220. Anomalous viscosity in mesomorphic melts, A., 1109.
- and Erbring, H., streaming double refraction of critical liquid mixtures, A., 897.
- and Gamm, W., solution of resins in alkali. I. Solution of American colophony and abietic acid in sodium hydroxide. III. Solution of copals, amber, and other resins in sodium hydroxide. IV. Solution of artificial resins, shellac, and palmitic acid in sodium hydroxide, A., 464; B., 276, 436.
- and Malss, H., viscosity of self-separating systems. I. Structure viscosity of critical liquid mixtures. II. Structure viscosity of mesomorphic fusions. III. Structure viscosity and flow elasticity of sulphur melts and other disperse systems, A., 456, 668, 674.
- Osugi, S., and Aoki, S., electroanalysis of adsorbed bases in soil, B., 438.
- and Endo, T., physiological reaction of fertilisers, B., 483.
- and Goto, T., decomposition of organic fertilisers. IV. Straws, B., 483.
- and Morita, S., chemical equivalents of clay acid and humic acids, A., 1031.
- and Yoshie, S., decomposition of organic matter in soil by micro-organisms, B., 82.
- Osuka, T. See Oda, S.
- O'Sullivan, J. V., albuminuria in pregnancy and its treatment, A., 179.
- Ota, Y. See Ueno, J.
- Otake, S., isolation of oryzanin, antineuritic vitamin. II., A., 1089.
- Otani, S., intermediary metabolism of tryptophan. XVII. (d) Interception of acetaldehyde by means of amino-acids in yeast fermentation, A., 308.
- See also Iwakura, N., and Kotake, Y.
- Othmer, D. F., and Eastman Kodak Co., removal of tar from pyroligneous liquids, (P.), B., 580. Crystallisation of salts [silver nitrate, etc.], from solutions containing them, (P.), B., 669. Composition for removing surface finishes, (P.), B., 756. Dehydration of acetic acid, (P.), B., 954.
- See also Clarke, H. T.
- Otin, C., and Dima, M., chemico-technical investigations of oil obtained from grape seeds from various wine-growing districts in Rumania, B., 435.
- Otis, A. N. See Gen. Electric Co.
- O'Toole, E., screening and concentrating apparatus, (P.), B., 769.
- Otruiganiev, A. V., relation of the tobacco plant to essential plant-food elements, B., 982.
- Otsuka, E., and Saegusa, E., positive active material for alkaline storage batteries, (P.), B., 716.
- Otsuka, Y., hormone of the placenta, A., 1338.
- Ott, Emil, and Slagle, F. B., X-ray studies of fatty acids and of mixtures of fatty acids, A., 342.
- and Wilson, D. A., raw ramie, A., 812. X-Ray studies of very complex mixtures of long-chain compounds, A., 896.
- See also Cairns, R. W., Duncan, W. E., Katzoff, S., Levin, I., and Morse, H. W.
- Ott, Erwin, and Krämer, K., isopropylidene compounds of glyceric esters, A., 807.
- Ott, T. F., and Union Oil Co. of California, treatment of [lubricating] oil, (P.), B., 10.
- Otta, B. See Hepner, T.
- Otte, M. See Gollwitzer-Meier, K.
- Otten, J. A. See De Boer, J. H.
- Ottenburg, R., and Kahn, J., relative immutability of  $p_H$  of the bile; buffering effect in bactericidal experiments, A., 299.
- Ottenstein, B. See Marchionini, A.
- Otterbein, G., Kerr effect with isomeric benzene derivatives, A., 1001.
- Otting, H. E., and M. & R. Dietetic Laboratories, Inc., milk product, (P.), B., 731.
- Otto, C., operating results with a small horizontal coke oven, B., 133. Regenerative coke oven, (P.), B., 339.
- Otto, J. S., mineral metabolism. XXII. Phosphorus, calcium, and protein, A., 530.
- Otto, M. See I. G. Farbenind.
- Otto, M. P. See Brit. Otto Ozone Water, Wood, & Textiles Treatment Co.
- Otto & Co. G.m.b.H., C., spraying devices, more particularly for use in gas scrubbers, etc., (P.), B., 208. Continuously operating vertical gas-generating chamber, (P.), B., 902.
- Ottolino, G., *Nigella damascena*, L., A., 651. Basic properties of hydrazones. VII., A., 1162.
- Oudin, A., variations of optical rotation of turpentine of *Pinus pinaster*, B., 156.
- Ouellet, C., investigation of the glow of phosphorus with the aid of a photo-electric counter, A., 446.
- Outhwaite, G. H. See Chattaway, F. D.
- Outridge, L. E. See Townsend, D. T. A.
- Outrite Fire Extinguisher Corporation. See Gilleo, A. J.
- Ovenshire, C. E. See Code, G. A.
- Overbeck, C. J., colour in films of sputtered tin, A., 446.
- Overbeck, G. A. See Westenbrink, H. G. K.
- Overbeck, W. P. See Bennett, R. D.
- Overberg, H. S. See Leuchs, H.
- Overcash, D. M., and Mathers, F. C., electrodeposition of magnesium, B., 923.
- Overhoff, J. See Harington, C. R., and Wibaut, J. P.
- Overholser, E. L. See Potter, M. T.
- Overman, O. R., and Gaines, W. L., milk-energy formulae for various breeds of cattle, A., 1195.
- Overseeth, O. E., movement of fertilisers in Carrington loam, B., 563.
- Overstreet, R. See Giauque, W. F.
- Overton, H. See Menzies, R. C.
- Ovitz, F. K., and Standard Oil Co., pyrolitic decomposition of hydrocarbons, (P.), B., 377.
- Ow-Eschingen, M., coating non-metallic substances with metals, (P.), B., 111. Metallisation [of plastics], (P.), B., 834.
- Owen, B. B., medium effect of various solvents on silver bromate at 25°, A., 670.
- Owen, E. A., and Iball, J., thermal expansion of zinc by the X-ray method, A., 894.
- and Pickup, L., X-ray study of copper-cadmium alloys, A., 454. Relation between mean atomic volume and composition in copper-zinc alloys, A., 561. Variation of mean atomic volume with temperature in copper-zinc alloys, with observations on the  $\beta$ -transformation, A., 562. Relation between mean atomic volume and composition in silver-zinc alloys, A., 669.
- and Yates, E. L., precision measurements of crystal parameters, A., 341. Crystal parameters of four metals when under reduced pressure, A., 1106.
- Owen, E. W. B. See Dunlop Rubber Co.
- Owen, G., additive compounds of phenyl-nitroamines and anilines, A., 816.
- Owen, J., and Simonsen, J. L., synthesis of homocaronic acid, A., 1160. Resolution of *cis*- and *trans*-dl-3-carboxy-1:1-dimethylcyclopropane-2-propionic acids and *trans*-dl-caronic acid, A., 1160.
- Owen, R. E., and Sanders, T. D., dependence of reflexion density of a photographic paper on the orientation of the paper with respect to incident light, B., 940.
- Owen, R. J. See Serrallach, J. A.
- Owen, S. Z., electrically heated steam generators for process industries, B., 991.
- Owen, W. L., production of industrial alcohol from grain by the amylo-process, B., 521. Ultra-violet irradiation stimulates yeast activity. B., 888.
- and Mobley, R. L., effect of ultra-violet rays on fermentation efficiency of yeast in alcoholic fermentation of molasses, A., 1205.
- Owens, C. D., and Bell Telephone Labs., insulation of magnetic bodies [dust cores], (P.), B., 113.
- Owens, H. W. See Ardagh, E. G. R.
- Owens, J. S., and Duffendack, O. S., quenching of mercury resonance radiation by hydrogen, carbon monoxide, and nitrogen, A., 1219.
- Oxford, A. E., and Raistrick, H., biochemistry of micro-organisms. XXV. 3:5-Dihydroxyphthalic acid, a product of the metabolism of glucose by *Penicillium brevi-compactum* and related species. XXX. XXXI. Molecular constitution of the metabolic products of *Penicillium brevi-compactum*, Dierckx, and related species. (I) Acids  $C_{10}H_{16}O_5$ ,  $C_{10}H_{16}O_6$ , and  $C_{10}H_{16}O_7$ . XXXIII. Mycelial constituents of *Penicillium brevi-compactum*, Dierckx, and related species. I. Ergosteryl palmitate. XXXIX. Mechanism of production of phenolic acids from glucose of *Penicillium brevi-compactum*, Dierckx, A., 189, 949, 1082, 1332.
- Oxford Varnish Corporation, and Casto, L. V., reproducing surface markings of wood and other material, (P.), B., 191.
- Oxley, H. F. See Brit. Celanese.
- Oxweld Acetylene Co. See Miller, W. B.
- Oxyammon Akt.-Ges. See Cederberg, I. W.
- Oya, T., and Yokota, S., pancreatic protease of cat-fish, A., 1204.
- Oyamada, S. See Matsui, M.
- Oyamada, T. See Katuku, K.

- Ozaki, J., nutritive values of fats. V., A., 857.
- Ozaki, M. See Straub, W.
- Ozawa, S., maturity of sugar cane. V. Utilisation of solar energy in the cane, A., 435.
- and Komatsu, S., maturity of sugar cane. II. Life history of "Hayaue" plant canes. III. Sucrose accumulation in the sugar cane. IV. Significance of water in "maturity," A., 435.
- and Makino, Y., maturity of sugar cane. VI. Changes in chemical composition of cane stalks deprived of their leaves, A., 435.
- See also Komatsu, S.
- P.
- Paal, H. See Oehme, C.
- Paar, W., Schneider non-sugar formula for determining the purifying effect, B., 120.
- See also Spengler, O.
- Paasch, action of different nitrate fertilisers on sugar-beet yields, B., 1073.
- Pabst, A., crystallography of compounds of gadolinium and samarium, A., 891.
- Pabst, M. L. See Bliss, A. R., jun.
- Pabst Corporation. See Frederiksen, F. M.
- Pace, D. M., relation of inorganic salts to growth and reproduction in *Amoeba proteus*, A., 751.
- Pacific Alkali Co. See Rosenstein, L.
- Pacific Coast Borax Co. See Newman, A.
- Pacific Lumber Co. See Carson, F. L., and Darling, E. R.
- Pacific Portland Cement Co., Consolidated. See Colton, J. H.
- Pacific R. & H. Chemical Corporation. See Walker, M.
- Pacini, A. J., and Sun-A-Sured, Inc., synthesising and transmuting antirachitic substances, etc., (P.), B., 685.
- Antirachitic substances, (P.), B., 732.
- Packard Motor Car Co. See Bamblett, F.
- Packendorff, K., Zelinski, N. D., and Leder-Packendorff, L., behaviour of keten in the Friedel-Crafts reaction, A., 1051.
- See also Zelinski, N. D.
- Packer, J., and Sargent, J. D., methylation of ethyl  $\alpha$ -dimethylglutaconate, A., 697.
- See also Fitzgerald, J. S.
- Pacsu, E., ketone sugar series. II. Preparation and structure of the hepta-acetate and methylglucosides of turanose, A., 811.
- and Rich, F. V., ketone sugar series. III. Open-chain derivatives of fructose and turanose, A., 937.
- Pacz, A., modifying aluminium and alloys consisting mainly or partly of aluminium without any added silicon, (P.), B., 71. Decreasing shrinkage in aluminium-bronze castings, (P.), B., 313.
- and Aluminum Co. of America, treatment of aluminium-silicon alloys, (P.), B., 71. Modifying aluminium alloys containing silicon, (P.), B., 71.
- Aluminum Co. of America, and Metallgesellschaft, A.-G., aluminium alloy casting, (P.), B., 433.
- See also Lightalloys, Ltd.
- Paddock, L. S., and Swift & Co., meat-stamping ink, (P.), B., 436.
- Paden, W. R., response of soil types to various rates of application of calcium arsenate, B., 883.
- Padoa, M., and Nerozzi, N., oxidation-reduction potential of peroxidase preparations, A., 980.
- Padovani, C., simultaneous production, from methane, of hydrogen, lamp-black, and light, liquid hydrocarbons, (P.), B., 851.
- and Franchetti, P., incomplete oxidation of methane with oxygen and air, A., 1253.
- and Magaldi, F., photochemical chlorination of methane, A., 370.
- and Monti, G., laboratory measurement of gas currents, A., 927.
- Paersch, E. See Herzog, R. O.
- Paffrath, H., and Massart, J., mineral and water metabolism of premature infants, A., 972.
- and Ohm, W., creatinuria in premature infants, A., 972.
- Paganini, G. J. L., evaluation of waste products from acid refining of mineral oils, B., 901.
- Page, A. B. P., measurement of gas concentrations for control of fumigation, B., 94.
- and Lubatti, O. F., application of fumigants to ships and warehouses. I. Distribution of ethylene oxide in empty warehouses. II. Distribution of hydrogen cyanide in empty warehouses. III. Penetration of hydrogen cyanide into bags of raw cacao stacked in piles of different sizes, B., 941.
- Page, G. A. See Wilson, Hewitt.
- Page, H. J., fertilisers, B., 762.
- See also Greenhill, A. W.
- Page, I. H., and Scott, Jasper P., use of disodium hydrogen phosphate as an antidote for hypercalcaemia in dogs, A., 180.
- See also Jahnel, F., Menschick, W., Müller, Eugen, and Van Slyke, D. D.
- Page, J. M., jun., Buchler, C. C., and Diggs, S. H., production of lubricating oils by extraction with  $[\beta\beta]$ -dichloroethyl ether, B., 579.
- Page, R. O., nature of combination of wattle-bark tannin with collagen, B., 358.
- and Holland, H. C., nature of water-soluble [matter] in leather tanned with wattle bark. III., B., 160.
- Pagel, H. A., and Carlson, W., determination of cyanide by distillation from sulphuric acid solution, A., 137.
- Paget, M., and Desodt, determination, identification, and elimination of barbituric acid derivatives in urine, A., 1198. Reactions of the barbituric acids, B., 812.
- Langeron, and Gondonnier, calcium balance: technique and pathological interpretation, A., 526.
- Pagon, W. W. See Ober, B.
- Pahl, A., apparatus for producing coatings from lacquers, stand oils, lacquer paints, stand oil paints, and rust-protective paints [by spraying], (P.), B., 357.
- Pahl, M. See Hevesy, G. von.
- Pai, N. G., Raman spectra of iodides. II. Ethyl, propyl, and isobutyl iodides, A., 886.
- Paic, M., X-ray investigation of the mercuric sulphates, A., 783. Reactions in the solid state, A., 1128. Sensitiveness of the Debye-Scherrer method, and possibility of its application to quantitative analysis, A., 1259.
- Paillard, H., and Demolis, A., preparation of nonoio acid and its catalytic reduction to nonaldehyde, A., 1141.
- and Duckert, R., catalytic oxidation of acenaphthene in solution, A., 816.
- and Favarger, P., chlorination of acenaphthene, A., 816.
- See also Briner, E.
- Paine, C. See Imperial Chem. Industries.
- Paine, H. S., and Balch, R. T., determination of sucrose and raffinose in beet cossettes by the enzymic method, B., 806.
- See also Dawson, L. E.
- Paine, S. G., Linggood, F. V., Schimmer, F., and Thrupp, T. C., relationship of micro-organisms to decay of stone, B., 628.
- Paired, P. K. See Billington, P. S.
- Pajetta, E., changes and keeping qualities of ferrous iodide syrups, B., 523.
- Pako Corporation, Houch, J. W., and Dye, G. M., handling articles through treating liquids, (P.), B., 4.
- Pal, C. K. See Das, A. K.
- Pal, I. B. See Sircar, A. C.
- Pala, J. J., electrolytes for dry cells which require filling with fluid, (P.), B., 973.
- Palache, C., anapaite, ainigmatite, and ouddidymite, A., 1137.
- and Berman, H., crystallography of allactite, A., 482.
- Palacios, J., kinetics of reactions governed by diffusion, A., 32.
- Palacios, P., and González Núñez, F., anomalies of the Halphen ratio in white wines of Huelva province. I., B., 809.
- Palante, R., calculation of the design of a rotary filter for systematic washing, B., 943.
- Palazzo, F. See Palazzo, F. C.
- Palazzo, F. C., and Palazzo, F., processes for production of practically pure  $\alpha$ -cellulose from raw celluloses, (P.), B., 382. Production of wood cellulose comparable to cotton, with high content of alkali-resisting cellulose, (P.), B., 1051.
- Palfray, L., Sabetay, S., and Rothbart, M., alkoxyaldehydes, A., 825.
- Sabetay, S., and Sontag, (Mlle.) D., action of dehydrating agents on  $\beta$ -phenylethyl alcohol, A., 391. Dehydration of nuclear-halogenated  $\beta$ -phenylethyl alcohols with potash, A., 501. Identification of  $\alpha$ -phenylethyl alcohol as oxalate, A., 1048. Determination of aldehydes by quantitative application of Cannizzaro's reaction, A., 1063.
- See also Sabetay, S.
- Paliakov, K. S. See Schorigin, P. P.
- Palibin, P. A., and Froiman, A. I., production of single crystals with prescribed axial orientation, A., 665.
- Palit, C. C., induced and photochemical oxidations and their importance in biological phenomena, A., 90.
- Palkin, A. P., reciprocal system in absence of the solvent, A., 570.
- Opnihtina, M. A., Lunskaia, N. P., Orlova, E. N., and Fedchenko, B. N., b.p., viscosity, density, and vapour pressure of brines obtained by a mixed process of salt separation of carnallites, B., 304.
- and Varasova, E. N., solubilities in the system potassium chloride-sodium chloride-magnesium chloride-water at 0°, A., 229.

- Palkin, S., component distribution trend in commercial turpentine-still operation, B., 237.
- and Harris, T. H., resin acids of American turpentine gum; preparation of the pimaric acids from *Pinus palustris*, A., 1166.
- and Watkins, H. R., purification and preservation of ether, (P.), B., 822.
- and Wells, P. A., composition of the non-phenolic portion of bay oil, A., 651. Chavicol and eugenol from oil of bay, A., 651.
- Pallaske, G., effects of feeding irradiated ergosterol to animals, A., 196.
- Pallier, A., colloidal resin as a wetting agent and adhesive [for fungicides], B., 1074.
- Palmaer, K. W., electrodeposition of metals [e.g., iron], and cathodes therefor, (P.), B., 71. Electrolysis with the use of a mercury cathode, (P.), B., 197, 875. Purification of mercury which has been used as a cathode in electrolysis, (P.), B., 875.
- Palmer, C. A. See Eisenhauer, E., jun.
- Palmer, E. T. See Wilkes, B. G.
- Palmer, E. W. See Smith, C. S.
- Palmer, J. W., and Clarke, H. T., elimination of bromides from the blood-stream, A., 312.
- Palmer, K. W. See Imperial Chem. Industries.
- Palmer, L. S., and Wiese, H. F., substances adsorbed on the fat globules of cream and their relation to churning. II. Isolation and identification of adsorbed substances, B., 443.
- See also Lachat, L. L., and Wiese, H. F.
- Palmer, R. See Brit. Thomson-Houston Co.
- Palmer, R. C. See Oliver, A. F., and Romaine, E. van.
- Palmer, W. W. See Gutman, A. B., and Heidelberg, M.
- Palmieri, C., precipitation and separation of the cations of the third and fourth groups in qualitative analysis, A., 584.
- Palomaa, M. H., and Aalto, V., ether-like compounds. IX. Rate of hydrolysis of ether- and hydroxyether-acetals, A., 491.
- and Herna, T. O., ether-like compounds. VIII. Hydrolysis of alkylformyl-formals [alkoxymethyl formates], A., 257.
- and Leimu, R., ether-like compounds. X. Rate of reaction of aliphatic acid halides, A., 697.
- Palukhin, D. V. See Nikitin, N. I.
- Pamfilov, A. V., and Federova, O. S., electrochemistry of chromium. III. Tervalent chromium, B., 24.
- and Ivančeva, E. G., determination of lead peroxide, B., 963.
- Pan, L. C., free cyanide in copper electroplating, B., 432. Carbonate in cyanide copper plating, B., 673.
- Pan American Petroleum & Transport Co. See Martin, Arthur R.
- Pan-Ross Laboratories, Inc. See Parsons, J.
- Panaiteanu, C. See Cercez, V.
- Panasjuk, V. I., reagent for determination of oxygen, A., 362.
- and Pisarenko, I., analysis of glass and of its raw materials, B., 62.
- Panay, T. N., black-body radiator of electrically heated carbon, A., 108.
- Pancoast, H. M. See Cruess, W. V.
- Pandit, C. G., and Chambers, R., intracellular  $pH$  studies. IX.  $pH$  of the sea-urchin egg, A., 634.
- Panelyte Corporation. See Crossman, G. J.
- Paneth, F. [with Loleit, H., and Lautsch, W.], use of free methyl and ethyl in chemical synthesis, A., 1138.
- and Günther, P. L., chemical detection of artificial transmutation of elements, A., 551, 659.
- Pangborn, M. C., and Anderson, R. J., lipins of tubercle bacilli. XXXII. Isolation of trehalose from the timothy-grass bacillus, A., 867.
- Panini, F., a new product: hexamethylene-tetramine + acetylsalicylic acid, B., 249.
- Pankratz, D. S. See Amberson, W. R.
- Panoff, P., soap, (P.), B., 28.
- Panopoulos, G., specific reaction of hardened fish oils, B., 1017.
- Panov, V. See Titov, E.
- Panova, S. V. See Kulikov, I. V.
- Panse, F., detection of morphine in urine of addicts, A., 1077.
- Panseri, C., characteristics of aluminium alloys in relation to chemical and structural composition, B., 673.
- Panstwowa Fabryka Związków Azotowych w Chorzowie, production of phosphorus [together with ferro-phosphorus and slag cement], (P.), B., 626.
- Papapetru, A., thermal expansion according to the lattice theory, A., 767.
- Papayanno, influence of time on conductivity of colloid [suspensions] at different levels, A., 23.
- Paper Patents Co. See John, Hans, and Rothchild, H. A.
- Paquin, M. See Gen. Aniline Works.
- Paranipe, D. R., and Chanderkar, D. V., automatic glass burette jet, A., 586.
- Paranipe, G. R., and Joshi, R. M., [stability of] liquid sodium amalgams, A., 118.
- Mirchandani, H. D., and Naik, Y. G., condensation of water vapour on dust nuclei, A., 122.
- Pardun, H. See Schenck, R.
- Parfenov, A. M., agglomeration of high-grade Krivovog iron ore, B., 868.
- Agglomeration of Bakal iron ores, B., 868.
- Parfentiev, J. A., and Perlzweig, W. A., composition of urine of white mice, A., 627.
- and Sokolov, B., lipolytic properties of the adrenals, A., 177.
- Parfitt, E. H. See Gustafson, C. B.
- Parga-Pondal, I. See Jakob, J.
- Parhon, C. I., and Cahane, M., cholesterol and water content of the adrenal cortex in mammals, A., 177. Effect in man of the parathyroid hormone on the plasma-, corpuscle-, and cerebrospinal fluid-chlorine, A., 193. Acidity and calcium content of gastric juice in thyro-parathyroidectomised animals or animals treated with parathormone, A., 193.
- and Derevici, H., changes in the weight, pulse, respiration, and blood- $pH$  and -alkali reserve in hyperthyroidised animals treated with thyroxine or "parathormone" or with thyroid and parathyroid gland, A., 193. Change in blood-sugar, -cholesterol, -calcium, -potassium, and -phosphorus on treatment with thyroid or thyroxine and "parathormone" and on combined treatment, A., 193.
- Parhon, C. I., and Ornstein, I., effect of parathyroid hormone on milk-calcium, A., 178. Effect of ovarian lipins on cholesterolaemia in amenorrhoea, A., 180. Effect of thyroxine on blood-cholesterol and -lipin, A., 430.
- Paris, G., climate and the chemical nature of [olive] oil, B., 927.
- Paris, R. See Fleury, P., and Maseré, M.
- Pariselle, H., change of sign of rotatory power and mutarotation of "aluminium emetic," A., 448.
- and Barbier, cadmium tartrates, A., 258.
- Pariset, G., synthesis of creatine from tissue-protein, A., 1194.
- Parisi, E., simple sugars and polysaccharides in hemp stems, A., 104.
- and De Vito, G., distribution of nitrates and "organisation" of nitrogen in the leaves of green plants, A., 197.
- Sacchetti, M., and Bruini, C., alcoholic fermentation of concentrated musts, B., 88.
- Parisi, P., catalases of cows' milk, B., 489.
- Park, B., and Lewis, E. J., determination of small amounts of antimony in copper, A., 689.
- Park, J. H., effect of service temperature conditions on e.m.f. of unsaturated portable standard cells, B., 272.
- Park, O. W., rate at which honey bees ripen honey, A., 652.
- Park, P. R., and Park, Inc., P. R., marine plant [kelp] product [for cattle food], (P.), B., 651.
- Park, Inc., P. R. See Park, P. R.
- Parke, C. S. See Harshaw, W. J.
- Parke, J. B., and Graham, H., emulsions, I., A., 1116.
- Parke, Davis & Co., Swingle, W. W., and Pfäffner, J. J., extracts obtainable from mammalian suprarenal glands, (P.), B., 205.
- See also Hamilton, C. S., and Hansen, A. M.
- Parker, A. E., rotational analysis of the perturbed (13, 15)  $^2\Sigma^-2\Sigma^-N_2^+$  band, A., 879. Zeeman effect for perturbed  $N_2^+$  terms, A., 879. Nuclear moment of beryllium, A., 1219.
- See also Watson, W. W.
- Parker, C. C., method of incinerating, (P.), B., 607.
- Parker, C. S. See Bleachers' Assoc.
- Parker, E. A. See Shriner, R. L.
- Parker, E. L., determination of potassium in fertilisers, (P.), B., 647.
- Parker, F. W., and Keenen, F. G., urea-ammonia liquor; new fertiliser material, B., 35.
- See also Du Pont de Nemours & Co., E. I.
- Parker, G. T. See Wilson, C. D.
- Parker, H. See Scott, D. A.
- Parker, H. C., extraction of gold from solutions, (P.), B., 794.
- Parker, H. K. See Baker, J. C.
- Parker, H. M., and Whitehouse, W. J., X-ray analysis of iron pyrites by the method of Fourier series, A., 13.
- Parker, H. W., and Rogers Radio Tubes, Ltd., thermionic tube, (P.), B., 795.
- Parker, J. G., numerical expression of wear-resistance of sole leather, B., 358.
- See also Stiasny, E.
- Parker, L. D. See Vickers-Armstrongs, Ltd.
- Parker, R. H. See Burrows, G. J.
- Parker Rust-Proof Co. See Darsey, V. M., Jones, E. M., Tanner, R. R., and Thompson, John S.

- Parker, Winder & Achurch, Ltd., and Smith, William Herbert, apparatus for screening and washing granular material, (P.), B., 528.
- Parkes, A. S. See Adam, N. K., and Askew, F. A.
- Parkes, D. W. See Robinson Bros., Ltd.
- Parkhomenko, V. E., bright stocks from paraffin-base crude oil of Baku, B., 292.
- Parkhurst, C. E. See Pervier, W. A.
- Parkhurst, R. T., factors affecting egg weight in the domestic fowl, B., 1080.
- and McMurray, M. R., relation of calcium and phosphorus to growth and rachitic leg weakness in chickens, A., 86. Factors in development of deforming leg weakness in chickens, A., 629.
- Parkin, M., and Winks, F., measuring temperature of flowing gases in furnace systems; a comparison between ordinary thermocouple and suction pyrometers, B., 95.
- Parkins, W. M. See Salant, W., and Swingle, W. W.
- Parkinson, L. See Libby, C. E.
- Parlinson, R. H. See Brit. Celanese.
- Parkinson, R. M. See David, W. T.
- Parkman, W. M., and Watson, J. S., apparatus for separating a plurality of condensates of hydrocarbon constituents of natural gas, (P.), B., 580.
- Parks, C. W., preparation of [coloured] clay products, (P.), B., 62.
- Parks, G. S., entropy and free energy relations among hydrocarbons, A., 1014.
- Huffman, H. M., and Barmore, M., thermal data on organic compounds. XI. Heat capacities, entropies, and free energies of ten compounds containing oxygen and nitrogen, A., 905.
- See also Banse, H.
- Parks, L. R., and Beard, H. C., stick antimony electrode. [I.] Theory. [II.] Theoretical limitations, A., 913.
- Parks, T. B., and Rose, E. R., copper, iron, and manganese content of fish, A., 411.
- Parks, W. G., adjustable temperature regulator, A., 1134.
- Parmelee, A. E. See Du Pont de Nemours & Co., E. I.
- Parmelee, C. W., Badger, A. E., and Ballam, G. A., group of typical spinels, A., 483.
- See also Chesters, J. H.
- Parmelee, H. M., and Hamilton, C. S., aldehyde oxidation of tolylarsinic acids, A., 618.
- Parnall, J. B., and Veitch, W. W., mixing apparatus, (P.), B., 129.
- Parnas, J. K., and Klímek, R., adenylic acid and adenine nucleotide, A., 730.
- and Sleniawski, J., photometric determination of carbon monoxide in blood. I., A., 1315.
- See also Klímek, R.
- Parravano, N., properties of industrial alumina, B., 1008.
- and D'Agostino, O., rate of solution of industrial aluminas in fused cryolite, A., 130.
- Parrott, A. E., newsprint from boiled wood, B., 859.
- Parrish, E. See Dent, F. J., and Wood, J. W.
- Parrod, J., transformations of sugars in ammoniacal medium at room temperature. I. Products of oxidation of sugars by oxygen and ammoniacal cuprie oxide, A., 260. Transformations of sugars in ammoniacal medium, A., 597.
- and Garreau, (Mlle.) Y., products of oxidation of fructose by ammoniacal copper carbonate and atmospheric oxygen in dilute solution at  $p_H$  7.7 and room temperature, A., 260.
- Parrott, P. J. See Hartzell, F. Z.
- Parry, E. J., and Seager, J. H., Bulgarian otto of rose, B., 605.
- See also Stevens, H. P.
- Parry, T. H., Johnson, W., and Gothard, H. A. S., apparatus for low-temperature carbonisation, (P.), B., 950.
- Parry-Jones, R. T. See Stafford, N.
- Parschin, A., extractives of muscle. XXXV. Biological transformation of carnosine, A., 1307.
- Parson, C. E. See McMaster, A. J.
- Parsons, C. S., Anderson, A. K., and Godard, J. S., reports of investigations: [Canadian] metallic ores section, B., 392.
- Parsons, D. A., clay in concrete, B., 388.
- Parsons, R. H. See Parsons, R. H.
- Parsons, H. L., determination of acetyl content of carbohydrate acetates, B., 584.
- Parsons, H. T., and Kelly, E., character of dermatitis-producing factor in dietary egg-white as shown by chemical treatments, A., 746.
- See also Hauck, H. M.
- Parsons, I. H., and Bell Telephone Labs., testing photographic developers, (P.), B., 492.
- Parsons, J., Stover, J. H., and Pan-Ross Laboratories, [paper-like] fuse composition, (P.), B., 685.
- Parsons, R. H., and Parsons, H. H., disposal of sewage, (P.), B., 254.
- Partington, J. R., systems of four immiscible layers, A., 120. Scientific work of Joseph Priestley, A., 368. Dependence of viscosity of air, argon, and hydrogen chloride on temperature, A., 454. Euchlorine, A., 1266. and Shah, C. C., hyponitrites. II. Metallic salts. III. Esters, A., 38.
- See also Cowley, E. G., and Hunter, E. C. E.
- Partridge, E. P., and Emery, A. H., manufacture of potassium salts from polyhalite and their significance as fertilisers, B., 962.
- See also Fragen, N.
- Partridge, J. H., tank blocks for glass-melting furnaces, B., 786.
- Partridge, W., reaction of human milk, A., 412. Extractives of rum, B., 121. Acidity of Gorgonzola and Stilton cheeses, B., 122.
- Parts, A., neutral salt effect in ionic reactions, A., 789.
- and Tudeberg, A., infra-red dispersion of carbon dioxide, A., 998.
- See also Eucken, A.
- Pasca, V. See Casimir, E.
- Pascal, P., and Bonneman, reversibility of the transformation of dimetaphosphates into Graham's salts, A., 1021.
- and Réchid, (Mme.), dimetaphosphates, A., 475.
- Paschen, F., line groups and fine structure, A., 332.
- Paschke, B., detection of foreign [hardened] fats in cacao butter, B., 314.
- Paschke, M. See Grethe, K.
- Paschkis, V., actual problems of furnace operation in annealing of metals, B., 551.
- Pasetschnik, S. J. See Rabinovitsch, M. A.
- Passerini, L., infra-red absorption spectrum of pyridine and its derivatives. I. Spectrum from about 0.80 to about 2.5  $\mu$  of pyridine and its homologues, A., 855.
- Passerini, M., and Bonciani, T., reaction between indoles and Schiff's bases, A., 615.
- Passl, J. See Späth, E.
- Passler, W. See Julian, P. L.
- Passmore, R., Peters, R. A., and Sinclair, H. M., catatorulin; comparing the oxidative factor in vitamin-B<sub>1</sub> concentrates, A., 871.
- See also Meiklejohn, A. P.
- Pastel, V., distilled water for photovoltaic cells with sensitised electrodes, B., 25.
- Pasternack, D. S. See Clark, K. A.
- Pasternack, R., Ammerman, C. P., and Pfäzer & Co., C., amides of *d*-gluconic acid, (P.), B., 1000.
- Burnham, R. W., and Pfäzer & Co., C., processing of cheese, (P.), B., 811.
- Giles, W. R., and Pfäzer & Co., C., highly soluble calcium gluconate, (P.), B., 1008.
- Pasunski, A. G. See Sokolov, S. I.
- Pasvik-Chlopin, M. A. See Chlopin, V. G.
- Patel, A. M. See Mapara, H. M.
- Patel, C. S. See Hughes, E. D., and Ingold, C. K.
- Patel, P. F., and Guha, P. C., bridge formation. I. Attempts to synthesise dicyclic terpene derivatives, A., 503.
- Patel, R. P. See Naik, K. G.
- Patel, Z. H., and Watson, H. E., velocity of alcoholysis of esters of dibasic acids, A., 1123.
- Patelski, R. A. See Blicke, F. F.
- Pateman, C. R. J. See Bassett, H.
- Patent & Licensing Corporation. See Loebel, Z. C., and Walton, S. F.
- Patentaktiebolaget Gröndal-Ramén, sulphite cellulose, (P.), B., 103. Waste liquors with a high content of organic substances in the digestion of sulphite pulp, (P.), B., 382.
- See also Haglund, G., and Lenander, N. E.
- Patent-Treuhand Gesellschaft für elektrische Glühlampen m.b.H. See Gen. Electric Co.
- Paternò, E., cellulose xanthate and viscose; soluble or peptised cellulose; composition of artificial silk, B., 501.
- Paterson, D. D., influence of time of cutting on the growth, yield, and composition of tropical fodder grasses. I. Elephant grass (*Pennisetum purpureum*), A., 1341.
- Paterson, J. F., cleansing of raw or manufactured wool, (P.), B., 1051.
- Paterson, W., use of Lafeuille rotary crystallisers at Carlota [cane-sugar factory, Philippines], B., 325. Results obtained with Lafeuille crystalliser pans [for low-grade sugar], B., 361. Apparatus for controlling the flow of liquids, particularly in filters, etc., (P.), B., 416.
- Paton, R. F., and Almy, G. M., boron hydride bands, A., 207.
- Patrick, A. L., influence of crop-residue decay on soil nitrates, B., 562.



- Patrick, J. C., plastic [rubber-like] substances, (P.), B., 757.  
 and Mnookin, N. M., vulcanisable compounds [containing rubber] and vulcanised products derived therefrom, (P.), B., 801.
- Patrick, R., fermentation of fructose by *Aerobacillus*, A., 317.
- Patrick, W. A., Barclay, E. H., and Silica Gel Corp., preparation of tungstic oxide gel, (P.), B., 61. Preparation of plural gels, (P.), B., 914.  
 See also Glidden, K. E.
- Patscheke, G., solubility of sodium chloride in liquid ammonia, A., 456.
- Patten, C. G. See Ueber, F. M.
- Patten, J. C. See Thompson, M. M.
- Patterson, G. D. See Du Pont de Nemours & Co., E. I.
- Patterson, H. A. See McQuarrie, I.
- Patterson, H. S. See Cawood, W.
- Patterson, T. S., Priestley as a practical chemist, A., 690.  
 Blackwood, (Miss) J. H., and Stewart, J. M., depression of m.p. of *r*-isoborneol, *l*-borneol, *d*-camphoroxime [and bornyl methylxanthate] by various substances, A., 223.  
 and McCreath, D., influence of solvents and other factors on the rotation of optically active compounds. XXXI. Rotation dispersion of the nitrobenzyl tartrates, A., 936.
- Patterson, W. I., and Adams, R., stereochemistry of *N*-phenylpyrroles. XXIX. Preparation and properties of *o*-*N*-carbazolyl- and *o*-*N*-3-nitrocarbazolylbenzoic acid, A., 513.
- Pattillo, D. K., Corson, G. E., Thompson, H. L., and Clinton Corn Syrup Refining Co., paper-making process [sizing], (P.), B., 1006.
- Patton, W. D., and North Shore Coke & Chem. Co., treatment of ammonia-still waste [for recovery of phenols therefrom], (P.), B., 614.
- Patwardhan, H. W., and Kappanna, A. N., kinetics of decomposition of trichloroacetic acid. II. Mechanism of decomposition of acid in aniline solutions, A., 1124.
- Patzauer, A., distinction of wine vinegar from other types of vinegar, B., 985.
- Patzelt, G. See Heller, K.
- Patzsch, H., detection of methyl alcohol in spirit preparations, B., 43.
- Paul, I., concrete pavement failures due to high-lime cement, B., 307.
- Paul, P. K., synthesis of 1:2:7-trihydroxy-5-methylanthrone-3-carboxylic acid, A., 158.
- Paul, R.,  $\Delta^8$ -pentenol and pentane- $\alpha$ -triol, A., 143. Stability of the oxide linking in tetrahydrofuran derivatives, A., 397. Molecular transposition accompanying the dehydration of tetrahydrofurfuryl alcohol, A., 831. Stability of the tetrahydrofuran ring. I. Fission of the oxide linking in tetrahydrofurfuryl alcohol; derivatives of  $\alpha$ -trihydroxypentane, A., 954.
- Paul, R. E. See Dann, A. T., and Lochte, H. L.
- Paul, W. D., Clark, B. B., and Gibson, R. B., transient hyperglycemia and glycosuria following discontinuation of insulin given non-diabetic patients, A., 739.
- Paula, G., influence of sprayed acid on germinating barley, B., 38.
- Pauli, W., and Ripper, E., electrochemical investigations on gum arabic sol, A., 349.  
 See also Klobusitzky, D. von, and Neurath, H.
- Paulik, F., influence of rapid carbonation on the filtration rate of [sugar] juice, B., 87.
- Pauling, H. See Hein, F., and Spaght, M. E.
- Pauling, L., normal state of helium molecules  $\text{He}_2^+$  and  $\text{He}_2^{++}$ , A., 205. Crystal structure of zunyite, A., 451. Formulae of antimonite acid and antimonates, A., 664, 919. Crystal structure of ammonium hydrogen fluoride, A., 892.  
 and Hultgren, R., crystal structure of sulvanite, A., 215.  
 and Sherman, J., crystal structure of rubidium nitrate, A., 215.  
 See also Bozorth, R. M., and Brockway, L. O.
- Paulov, G. S. See Zelinski, N. D.
- Paulus, R. See Stackelberg, M. von.
- Pauly, R. J. See Schuette, H. A.
- Pavelka, F., and Morth, H., quantitative rapid micro-analysis of pure aluminium. I. Determination of iron, copper, and manganese, B., 1062.
- Pavlas, P., rapid approximate determination of invert sugar in raw sugar, B., 520.  
 See also Staněk, V.
- Pavlik, A., electrochemical stability test for explosives, B., 989.
- Pavlik, M. M., absorption spectra of 2:4:6-trinitrotoluene, A., 1152.
- Pavlov, G., seeds and oil of *Staphylea pinnata*, L., B., 797.
- Pavlov, G. I., aggregate analysis and aggregate composition of the soil, A., 253.
- Pavlov, S. N. See Velikovski, A. S.
- Pavlova, P. I. See Smorodincev, I. A.
- Pavlovitsch, S. See Agatonov, V.
- Pavlovski, G. See Saidel, T.
- Pavolini, T., 2:3-diaminophenazine as a sensitive analytical reagent, A., 799. Identification of phthalic esters in essential oils, B., 205. Characteristics of the principal textile fibres and their detection, B., 958.
- Pawlitschko, A. R., and Western Newspaper Union, matrix board for stereotyping, (P.), B., 1006.
- Pawłowski, C., properties of H-rays, A., 203.
- Paxinos, S. A., nutrient intake of plants from constantly renewed (flowing) nutrient solutions, B., 402.
- Paxson, W. L. See Coleman, G. H.
- Payman, W., and Woodhead, D. W., photographic methods for measuring velocities of explosion waves and shock waves, B., 173.
- Payne, A. C., Newman, D. F., and Trans-Lux Daylight Picture Screen Corp., projection screen, (P.), B., 685.
- Payne, B. H., and Stulz-Sickles Co., [steel] alloy, (P.), B., 632.
- Payne, (Miss) C. H., physical analysis of Wolf-Rayet spectra, A., 760. Absorption lines of N v in stellar spectra, A., 1095.  
 See also Boyce, J. C., and Menzel, D. H.
- Payne, E. E. M., treatment [colouring and fireproofing] of wood, fibre board, wood pulp, wood fibre, etc., (P.), B., 700.
- Payne, E. H., and Standard Oil Co., vacuum distillation, (P.), B., 992.
- Payne, F. J. See Dunlop Rubber Co.
- Payne, J. W. See Copson, R. L.
- Payne, R. B., and Nat. Aniline & Chem. Co., azo-dyes, (P.), B., 1001.
- Payne-Scott, R., relative intensity of spectral lines in indium and gallium, A., 332.
- Paynter, W. L., and Forth Engine & Motor Works (Newcastle-upon-Tyne), Ltd., measuring of materials requiring heat for mixing with heavier fractions, etc., (P.), B., 97. Drying of any granular or similar material, (P.), B., 768.
- Pays, A., dough from wheat and other cereals, (P.), B., 364.
- Pázler, J., action of the follicular hormone on vegetables, A., 1086. Value of fodder and half-sugar beets in comparison with sugar beets, B., 490.
- Peabody Engineering Corporation. See Harmon, R. R., Leask, J. P., and London, W. J. A.
- Peacock, M. A., bismuthite, A., 1137.
- Peacock, W., jun., and Peacock Labs., Inc., "copper plating" [of glass mirrors], (P.), B., 834.
- Peacock Laboratories, Inc. See Peacock, W., jun.
- Peakes, L. V., jun. See Morton, A. A.
- Pearce, D. W. See Hughes, G.
- Pearce, J. N., and Hooper, M. A., physical properties of aqueous salt solutions, A., 776.  
 and Nelson, A. F., vapour pressure, [density], and activity coefficients of aqueous solutions of perchloric acid at 25°, A., 1014.  
 and Newsome, J. W., solubility of substituted benzoic acids in typical salt solutions at 25°, A., 773.  
 and Wirth, V. I., potential of the silver-silver iodate electrode at 25°, A., 1121.
- Pearce, M. S. See Pierce, H. B.
- Pearce, S. L. See Hewson, G. W., and London Power Co.
- Peard, W. L. See Colas Products, Ltd.
- Pearsall, W. H. See Loose, L.
- Pearse, R. W. B., 3360 Å. band of NH, A., 207.
- Pearson, A. M., and Richardson, C. H., relative toxicity of trisodium arsenite and arsenious acid to the house fly, *Musca domestica*, L., B., 653.
- Pearson, H. P., and Stanco, Inc., sizing of paper, (P.), B., 265.
- Pearson, J. See Le Fèvre, R. J. W.
- Pearson, T. G., carbonyls of lithium, rubidium, and caesium [calcium?], A., 238.
- Robinson, P. L., and Stoddart, E. M., behaviour of metals, particularly lead and bismuth, in atomic hydrogen, and attempts to prepare atomic hydrogen from hydrides, A., 1257.  
 See also Aynsley, E. E.
- Pearson, W. L. See Adams, A. S.
- Pease, F. F. See Pease, Anthony Equipment Co.
- Pease, R. N., thermal reaction between acetaldehyde vapour and oxygen, A., 913.  
 and Keighton, W. B., jun., removal of thiophen from benzene by catalytic hydrogenation. I., B., 933.  
 and Morton, J. M., kinetics of dissociation of typical hydrocarbon vapours, A., 1017.

- Pease, R. N., and Munro, W. C., removal of thiophen from benzene by catalytic hydrogenation. II., B., 953.  
See also Purdum, R. B.
- Pease, Anthony Equipment Co., and Pease, F. F., washing of gases, (P.), B., 416.
- Peccerillo, D. See Bakunin, J.
- Pech, J. See Herasymenko, P.
- Peck, A. B., physical chemistry of the alumina-silica refractories. V. Behaviour of unstable or monotropic forms in the system  $Al_2O_3-SiO_2$  and related systems, A., 229.  
See also Kammermeyer, K.
- Peck, E. B., and Standard-I. G. Co., reactivation of catalyst used for hydrogenation of hydrocarbon oils, (P.), B., 903.
- Peck, J. S., and Barrett, B. V., light-weight building materials, (P.), B., 270.
- Peck, L. L., and Claude Neon Lights, Inc., vacuum tube, (P.), B., 795.
- Peck, S. M. See Sobotka, H.
- Pecker, H., [ammonium molybdate] reaction of industrial cherry-laurel water distillates, B., 43.
- Peczalski, T., solution of salt in metal, A., 916.
- Pedder, J. S., and Barratt, S., determination of the vapour pressures of amalgams by a dynamic method, A., 669.
- Peddrick, C. H., jun., Lewis, P. W., and United Feldspar Corp., preparation of feldspathic flux for porcelain, (P.), B., 148.
- Pedersen, K. J., velocity of bromination of ethyl acetoacetate. I. The water reaction, A., 910.
- Pedersen, K. O., isoelectric point of proteins. I., A., 674.
- Pedersen, V. S. See Dédé, J.
- Pederson, C. S., relation between temperature and rate of fermentation of commercial sauerkraut, B., 169.  
and Kelly, C. D., quality of commercial sauerkraut, B., 169.  
See also Carpenter, D. C.
- Pedrini, F. See Rupe, H.
- Peebles, D. D., separating apparatus, (P.), B., 97.
- Peerkamp, P. K. See Kronig, R. de L.
- Peet, C. H. See Murphy, D. F.
- Peet, L. J., dietary factors affecting lactation in the albino rat, A., 300.
- Peffer, H. C., Harrison, R. L., Ross, D. E., and Rostone, Inc., structural material, (P.), B., 108, 629.  
Harrison, R. L., and Shreve, R. N., synthetic stone, B., 707.
- Jones, P. W., and Rostone, Inc., structural material, (P.), B., 629.
- Peierls, R., theory of diamagnetism of conductivity electrons, A., 10. Electronic theory of metals, A., 335. Theory of diamagnetism of conductivity electrons. I. and II., A., 449. Theory of metals, A., 552.  
See also Gnth, E.
- Peiker, A. L., and Coffin, C. C., solid-liquid equilibria in two-component systems involving hydrogen cyanide, A., 465.  
See also Kriebel, V. K.
- Peile, J. B. See Andrew, J. H.
- Peiper, A. S. See Heitzman, J. L.
- Peirce, A. W. See Marston, H. R.
- Peirce, J. O., Myers, L. D., and Kontol Co., treatment of [petroleum] emulsions, (P.), B., 695.
- Reddish, W. T., and Kontol Co., emulsion breaking, (P.), B., 615.
- Pierce, W. M., and New Jersey Zinc Co., wrought zinc product, (P.), B., 794.
- Peirier, J. C., and Nguyen-Kim-Kinh, rapid determination of amino-acids and polypeptides in nuoc-mam, B., 283.
- Peisker, H. See Ebert, Fritz.
- Pekar, J., preparations for subcutaneous injections against septic illnesses in animals, (P.), B., 765.
- Pélabon, H., action of white phosphorus on copper salts, and of copper on white phosphorus, in presence of water, A., 683.
- Pelant, V., preparation and testing of methanites, B., 989.
- Pellegrini, A. F. See Gruber, G.
- Pellegrini, M., uric acid metabolism in pulmonary tuberculosis, A., 1324.
- Pellegrino, G., and Pellegrino, M., drying apparatus for malt and similar grain, (P.), B., 649.
- Pellegrino, M. See Pellegrino, G.
- Pelletier, M. See Fromageot, C.
- Pellet, D. L., design, construction, and costs of arc-welded pebble mills, B., 127.
- Pelshenke, P., short method for determination of gluten quality of wheat, B., 281.
- Pelton, E. L. See Strosacker, C. J.
- Peltz, E. I. See Stogov, A. F.
- Peltzer, J., determination of alcohol in blood, A., 310. Colour reaction of *m*-dinitrobenzene in the forensic detection of benzene, A., 532. Microchemical reaction of *m*-dinitrobenzene for the forensic detection of benzene, A., 747. Toxicological detection of veronal, luminal, and phanodorm, A., 1198.
- Pelz, S., crystal photo-effect with photoelectric conducting sodium chloride, A., 887.
- Pelzer, H., reaction kinetics of coupled oscillators, A., 1016.
- Pelzer, H. L., and Sinclair Refining Co., cracking of hydrocarbons, (P.), B., 52, 536.  
See also Herthel, E. C.
- Pember, F. R. See Gilbert, B. E.
- Pemberton, A. H. See Brand, J. J. F.
- Pemberton, R. T. See United Water Softeners.
- Pemetzrieder, G., alloy with copper as primary metal, (P.), B., 633.  
See also Peyinghaus, W.
- Pénau, H. See Cliquet, R., and Santenoise, D.
- Pend, F., and Berger, Gerhard, excretion of cholesterol during action of therapeutic substances on the intestine, A., 969.
- Pendray, G. See Sadler, W.
- Pendse, G. P. See Ghatak, N.
- Penfold, A. E., gutta-percha: its characteristics and manufacture, B., 479.
- Penfold, A. R., Western Australian sandalwood oil. II., B., 284.  
and Morrison, F. R., occurrence of a number of varieties of *Eucalyptus radiata* (*E. numerosa*) as determined by chemical analyses of the essential oils, B., 124. Use of prickly-pear in treatment of diabetes, and preparation of a concentrated extract, B., 604.  
and Simonsen, J. L., essential oils of three species of *Geijera* and occurrence of a new hydrocarbon. II., B., 445.  
See also Bradfield, A. E.
- Penfold, W. J., and Sutherland, J., movements and precipitations of an amphoteric colloid due to an electric field and slight electrolysis; modified Hardy's experiment suitable for demonstration purposes, A., 225.
- Peng Chung-Ming, action of boric acid on alkaline-earth chlorides and nitrates, A., 917.
- Penkert, M. See Kostyál, L.
- Penman, F., and Rountree, P. M., influence of a wheat crop on accumulation of soil nitrate, B., 163.  
See also Taylor, J.
- Pennell, F. See Jauncey, G. E. M.
- Penney, W. G., crystalline fields of Pr, Nd, and Yb from paramagnetic susceptibilities, A., 449. Law of force between two helium atoms, A., 1226.  
See also Schlapp, R.
- Penning, C. J. H., apparatus for use in settling of liquids containing matter in suspension, (P.), B., 3.
- Pennsylvania Crusher Co. See Battey, W. A., and Borton, G. W.
- Pennsylvania Powder Co. See Schless, R.
- Pennsylvania Salt Manufacturing Co. See Ioannu, J. P.
- Pennsylvania State College. See Lorand, E. J.
- Penny, D. D., effects of oil spray on the navel orange, B., 119.
- Penobscot Chemical Fibre Co. See Hooper, H. S.
- Pensa, A. J. See Gales, N.
- Penseler, W., James coal of New Zealand, A., 693.
- Penston, N. L. See James, W. O.
- Penta, N. A., and Razumov, A. S., [effects of] introduction of volcanic ash into glass, B., 670.
- Penteado, M. S., is the banana nutritious? B., 937.
- Pentegov, B. P., Kostromina, A. A., Tonkonogov, L. I., and Simanov, V. V., dynamics of salt equilibrium in brine, ooze, and ice of the Doroninsky soda lake, A., 1267.  
and Nyankovskaja, R. N., tendency of coal to spontaneous combustion, B., 450.
- Pentelow, F. T. K. See Southgate, B. A.
- Peoples Gas By-Products Corporation. See Guthrie, R. G.
- Pepe, R. C., preparation of depsides with the aid of azides, A., 1165.
- Peper, J. P. See Smit, R.
- Pepper, D., "forming" battery plates, (P.), B., 434.
- Pepper, J. H., catalase activity in army cutworm moths; (*Chorizagrotis auxillaris*, Grote), B., 245.
- Pequart, contamination of rivers by industrial effluents, B., 574.
- Peraita, M. See Sacristán, J. M.
- Perakis, N., and Capatos, L., paramagnetism of rhenium, A., 340.
- Pérard, A., elimination of error of parallax in thermometer readings, A., 585.
- Pérard, J., theoretical principles relating to continuous distillation columns, B., 527.
- Perciabosco, F. See Noto, F.
- Percival, E. G. V. See Ault, R. G., Herbert, R. W., and Hirst, E. L.
- Percival, G. P., and Potter, G. F., amount and variability of spray residue on New Hampshire Baldwin apples, B., 37.
- Percy, W. W., reducing iron oxide ore to its metallic form, (P.), B., 393.
- Perdran, J. R., and Todd, C., photodynamic action of methylene blue on bacteriophage, A., 429. Photodynamic action of methylene blue on certain viruses, A., 430.

- Pereira, F. B., and Da Cruz, A., specificity of phosphatases; enzymic hydrolysis of a hydroxyquinoline phosphate by vegetable phosphatase, A., 188.  
See also Jacobsohn, K. P.
- Perekalski, N. See Fotiev, S.
- Perelis, W. J., bromination of saturated aliphatic hydrocarbon gases, A., 1271.
- Perelmann, J., colorimetric determination of terpin hydrate in medicaments, B., 91.  
See also Brodsky, B.
- Perémy, G., and Feledy, K., determination of amino-nitrogen in endocrine and joint disease, A., 1071.
- Peritz, G., parathyroid hormone and its occurrence in other organs, A., 868.
- Perkin, H. J., determination of iodine in blood, A., 1065.
- Perkins, A. E., chemical composition and nutritive properties of milk as affected by the level of protein feeding. I. Chemical composition, A., 528.
- Perkins, A. T., King, H. H., and Benne, E. J., effect of exchangeable base and soil treatments on phosphorus solubility [in soils], B., 83.
- Perkins, I. M. See Funsten, S. B.
- Perkins, L. B. See Hughes, J. M.
- Perkins, M. E. See Helleman, L.
- Perkins, R. L., and Nat. Aniline & Chem. Co., froth-floatation of minerals, and agents therefor, (P.), B., 234.  
See also Moses, F. G.
- Perkins, R. P., Petrie, P. S., and Dow Chem. Co., production of primary aromatic amines of the benzene series by hydrogenation of their corresponding azoethers, (P.), B., 1047.
- Perla, D., and Marmorston-Gottesman, J., *Bartonella muris* anaemia. VI. A lipin extract of the spleen that prevents *Bartonella muris* anaemia in splenectomised rats. VII. Protective action of copper and iron against *Bartonella muris* anaemia, A., 301. Extraction of adrenal cortical hormone-like substance from urine, A., 754.
- Perlenfein, A., chromium-plating bath with the fluoride ion, B., 511.
- Perlitz, H., rules of valency electron concentration in binary intermetallic alloys, A., 118. Crystal structure of phase A of the system Ag-Li, A., 1007.
- Perlman, J. L., analysis of mayonnaise and variability of its egg constituents, B., 330.
- Perlzweig, W. A., activation of urease, A., 915.  
See also Parfentiev, J. A.
- Permutit Akt.-Ges. See Permutit Co.
- Permutit Co., and Permutit A.-G., base-exchange gels, (P.), B., 189.  
See also Behrman, A. S., Liebknecht, O., and McConnell, A. F.
- Pernot, (Mlle.) M., system  $\text{HgBr}_2\text{-KBr-EtOH}$ , A., 570.
- Peroni, G., rice by-products for cows and fattening cattle, B., 1033.
- Péronnet, M., and Truhaut, R., colour reactions of *m*-dinitrobenzene in alkaline media, A., 1314.
- Perquin, L. H. C. See Kluyver, A. J.
- Perret, A., preparation of compounds of carbon and nitrogen with metallic elements, B., 305.  
and Gislou, A., thermal degradation of complex cyanides of iron, A., 685.  
and Krawczynski, A. M., action of organo-mercury derivatives on solutions of hexamethylenetetramine, A., 262.
- Perret, A., and Perrot, R., equilibrium cyanide-cyanamide, A., 229. Methyl-mercury derivatives, A., 815. Catalysis and transformation of alkaline-earth cyanides into cyanamides, A., 1252.
- Perrier, A., crystal lattice and spontaneous striction, A., 1002.
- Perrin, F., average life of activated atomic nuclei: probable cases of impossibility of  $\gamma$ -ray emission, A., 4.
- Perrin, J., neutrons, A., 1224.
- Perrin, R., metallurgy [of iron], B., 830.  
and Portevin, A., formation of inclusions in steel manufacture, B., 832.  
See also Portevin, A.
- Perrin, T. S., and Bailey, J. R., nitrogen compounds in petroleum distillates. IV. Cumulative extraction of kerosene bases; isolation of 2:4:8-trimethylquinoline, A., 1305.
- Perrino, M., indifferent fluid extracts according to the Italian Pharmacopœia. V., B., 524.
- Perrins, A. W. See Cunard Steam Ship Co.
- Perron, M. P. See Miguet, P. L. J.
- Perroncito, G. See Crippa, G. B.
- Perrot, R. See Perret, A.
- Perrott, G. St. J., Holderer, G. B., and United States, [liquid oxygen], explosive, (P.), B., 493.
- Perry, A. C. See Armstrong Cork Co.
- Perry, E. O. V. See Crawford, M. E. F.
- Perry, J. A., and United Gas Improvement Co., hydrogen, (P.), B., 61.
- Perry, J. H., and Smith, Edgar R., method for interpolating [engineering] data, based on Dühring's rule, B., 287.
- Perry, S. Z. See Hibbert, H.
- Perry, W. M. See Brewster, O. C.
- Persons, T. D. See Miles, L. E.
- Pertierra, J. M., determination of organic bases in a Bergius-process oil, B., 180. Colloidal dispersion of coal, B., 818. Hydrogenation of a lignite, B., 818. Hydrogenation and desulphurisation of a petroleum fraction, B., 818.  
See also Buylia, B. A.
- Pertschik, F. S., rapid analysis of water-glass, B., 864.
- Pertusi, C., and Di Nola, E., defecation of complex materials with basic lead acetate in presence of alkali hydroxides, B., 843.
- Pertzoff, V. A., solubility of glutamic acid in water and organic solvents, A., 456.  
and Carpenter, S. O., effect of temperature on titration curve of caseinogen, A., 172.
- Perutz, A., and Lustig, B., excretion of fat through the skin, A., 738.
- Pervier, W. A., and Parkhurst, C. E., mixing apparatus, (P.), B., 288.
- Pervuschin, B. I. See Charmandarian, M. O.
- Pesch, T., solvents for the safety-glass industry, B., 227.
- Peschel, J. See Raudnitz, H.
- Peschke, W. See Kindler, K.
- Pešek, K., testing of safety fuse with a galvanometer, B., 989.
- Pesin, Y. M. See Tschitschenko, V. E.
- Peskett, G. L., growth factors of lower organisms, A., 537.
- Peskin, M. See Porai-Koschitz, A., and Soloviev, N. S.
- Peskov, N. P., and Preis, E., kinetics of cupric oxide sol formation, A., 124. Time changes in resin sols (ageing phenomena), A., 778.  
See also Sokolov, S. I., and Solotareva, S. V.
- Pesta, O. See Späth, E.
- Pestalozza, P., bleaching powder, (P.), B., 785.
- Pestemer, M. [with Birkmann, M.], internal friction of liquid mixtures of limited miscibility. I. Ternary system benzene-alcohol-water. II. Binary systems of paraffin oils with water with addition of acids and alkali, A., 1111.  
and Platten, O., conductivity of binary or ternary partly miscible liquid mixtures with one very weak electrolytic component, A., 468.  
See also Kremann, R.
- Pet Milk Co. See Louder, E. A.
- Peták, V. See Glazunov, A.
- Peter, A. H. See Stokes, W. E.
- Peter, B., Thaler, H., and Täufel, K., analysis of pentosans, A., 1278.
- Peter, J. See Verzár, F.
- Peter, J. R., total pigment and bilirubin in normal human blood-serum, A., 966.
- Peters, rotary furnace, B., 847.
- Peters, A. T. See Rowe, F. M.
- Peters, C., micro- and spectro-assay of noble metals, B., 971.  
See also Goldschmidt, V. M.
- Peters, F. N., jun., and Quaker Oats Co., reduction of furfural [furfurylidene]-acetone and furan derivatives, (P.), B., 998.
- Peters, G. H., and Hercules Powder Co., safety glass, (P.), B., 670.
- Peters, H., fluorescence of silicates under the influence of cathode rays, A., 7.
- Peters, J. P., Kydd, D. M., and Eisenman, A. J., serum-proteins in diabetic acidosis, A., 971.
- Kydd, D. M., Eisenman, A. J., and Hald, P. M., nature of diabetic acidosis, A., 971.  
See also Man, E. B.
- Peters, K., and Neumann, L., formation of liquid hydrocarbons from acetylene. III. Production of benzene by successive electrical and catalytic transformation of coke-oven gas, B., 533.  
and Picker, W., influence of grain size on oxidation and spontaneous ignition of bituminous coal, B., 818.  
See also Fischer, Franz.
- Peters, M. A. See Fieser, L. F.
- Peters, O. See Helferich, B.
- Peters, R. A., and Philpot, J. St. L., ultra-violet absorption of crystalline preparation of vitamin-B<sub>1</sub>, A., 645.  
and Sinclair, H. M., avian carbohydrate metabolism. IV. Factors influencing the maintenance of respiration in surviving brain tissue of the normal pigeon, A., 1326.  
See also Barnes, H., Heard, R. D. H., Kinnersley, H. W., Meiklejohn, A. P., and Passmore, R.
- Peters, T. See Barger, G.
- Petersen, A. See Metallges. A.-G.
- Petersen, A. E., and Celluloid Corp., imitation pearl, (P.), B., 1021.
- Petersen, E. See Schönberg, A.
- Petersen, H., theory of X-ray absorption by molecular gases. II., A., 332.
- Petersen, S. See Helferich, B.
- Petersen, Siegfried, determination of pepsin in stomach contents with the Zeiss-Pulfrich photometer, A., 299.
- Petersen, W., clarification of brown-coal sludge, B., 496.
- Petersen, W. E., and Rigor, T. V., osmotic pressure and milk secretion, A., 412. Effect of delayed milking on composition of cow's milk, B., 363.

- Petersen, W. H., Pruess, L. M., Goricca, H. J., and Greene, H. C., large-scale laboratory cultivation of moulds, A., 428.
- and Snieszko, S., thermophilic fermentation of cellulose and cellulosic materials, A., 1333.
- See also Elvehjem, C. A., and Tatum, E. L.
- Peterson, A. R., Conn, H. J., and Melin, C. G., standardisation of biological stains. I. General. II. Fluoran derivatives. III. Nitro- and azo-dyes, A., 846, 1185.
- Peterson, B. H., and Hann, J., oxidation of nitrogenous material and contaminated river water, B., 686.
- Peterson, C. J., Fang, E. H. C., and Hixon, R. M., partition of constituents of the cornstalk by the action of alkali, B., 459.
- and Hixon, R. M., use of ammonia solution as a pulping agent for the grasses, B., 459.
- Peterson, F. C., and Beyer, D. C., comparison between flint pebbles and porcelain balls as a means of hydrating in the pebble-mill test [for wood pulp]. II., B., 859.
- and Kolesinskas, J., effect of pebble-weight variation in strength testing of wood pulp, B., 542.
- See also Wise, L. E.
- Peterson, V. I. See West, Edward S.
- Peterson, W. D. See Kohler, E. P.
- Peterson, W. H., and Johnson, M. J., fermentation of acetoacetic acid and pyruvic acid by the acetone-butanol organism *Cl. acetobutylicum*, A., 639.
- See also Hopkins, E. W., Johnson, M. J., Norman, A. G., and Wilson, P. W.
- Peterson, W. J. See Huston, R. C.
- Petertil, E. See Herzog, R. O.
- Petherbridge, F. R., and Thomas, I., control of the raspberry beetle, B., 245.
- Petin, N. N., Higerovitch, M., and Gajsinovitch, E., electroconductivity method of studying the processes of setting and hardening of lime-kieselguhr cements, B., 190.
- See also Golombik, M. S., and Ivanov, K. I.
- Petina, A. See Malkov, A.
- Petit, A., potentiometric determination of a mixture of [silver salts], thiosulphate, and chloride, A., 137.
- See also Guillet, L.
- Petitpas, (Mlle.) G. See Bouehonnet, A.
- Petrenko-Kritschenko, P., law of periodicity. VIII. Theory of coloured inorganic and organic compounds, A., 1048.
- [with Gorocholinskaja, M., and Trozenko, A.], law of periodicity. VII. Activity of compounds with similar and dissimilar substituents, A., 254.
- Petrescu, V., depolarisation of light on passing through colloidal solutions, A., 567.
- Petri, H. See Wittig, G.
- Petri, W., results from the Weinforschungsanstalt of the Moselle, Saar, and Ruhr: (1) action of ultra-violet rays on must and wine; (2) manufacture of wines with high natural carbon dioxide content (Perlwein); (3) preparation of a natural pure foaming wine; (4) detection of natural and sugared wine, B., 521.
- Petrianov, I. See Fuchs, N.
- Petrick, A. J. See Bahr, T.
- Petrie, A. H. K., relation of mineral nutrition to transpiration in plants, A., 101. Intake of ions by the plant and its relation to the respiration of the root, A., 648.
- Petrie, P. S. See Perkins, R. P.
- Petrikaln, A., and Jacoby, K., thermoelectric power in the systems tellurium-sulphur and tellurium-selenium, A., 219.
- Petro-Sol Corporation. See Prussin, A. A.
- Petroleum Chemical Corporation. See Brooks, B. T., Davis, H. S., and Norris, J. F.
- Petroleum Conversion Corporation. See Beardsley, E. W., and Sachs, A. P.
- Petroleum Derivatives, Inc. See Ryder, J. C.
- Petroleum Engineers, Inc. See Acker, F. V.
- Petroleum Rectifying Co. of California. See Eddy, H. C., and Fisher, H. F.
- Petrov, A. A. See Lichoscherstov, M. V.
- Petrov, A. D., relationship between detonation and structure of hydrocarbons present in gasoline, B., 498.
- Andreev, D. N., and Chaplugin, B. A., production of heptane and  $\beta\beta\delta$ -trimethylpentane, A., 254.
- Antzuz, L. I., and Andreev, D. N., structure of Malbot's diisobutylene, A., 804.
- Antzuz, L. I., and Pozhiltzeva, E. N., synthetic lubricating oils from gaseous olefines, B., 212.
- and Antzuz, L. I. [with Saveljev, A. O., and Ikonen, E. V.], hydrogenation, under pressure, of 5-phenyl-3-methyl- $\Delta^2$ -cyclohexenone and of 5-phenyl-3-p-tolyl- $\Delta^2$ -cyclohexenone, A., 394.
- Petrov, A. V., use of starch for accelerating velocity of settling of sludge, B., 963.
- Petrov, G., and Dimakov, S., utilisation of sunflower-seed hulls, B., 859.
- See also Dubinin, M. M.
- Petrov, I. R., and Libikh, S. F., blood-potassium and -calcium in electric shock, A., 1078.
- Petrov, K. P., determination of aldehydes in fish oils and in fat of marine animals, B., 878.
- Petrov, N. K. See Malinovski, V. E.
- Petrova, M. A., and Yakovtzevskaja, A. K., iodometric determination of hydrogen sulphide, A., 243.
- Petrowa, E. K., microbiology of common salt, A., 1334.
- Petrü, F. See Raudnitz, H.
- Petrunkin, A. M., Petrunkin, M. L., and Zavyalova, A. P., correlation of  $p_H$  of the cerebrospinal fluid and blood in rabbits, A., 1068.
- Petrunkin, M. L. See Petrunkin, A. M.
- Petsch, W. See Maurer, K.
- Pett, L. B., determination of inorganic phosphate in the presence of arsenic, A., 1261.
- and Wynne, A. M., bacterial phosphatases. II. Phosphatases of *Cl. acetobutylicum*, Weizmann, and *Propionibacterium Jensenii*, Van Niel, A., 1333.
- Pettersson, H., and Schintmeister, J. J., atomic radiations of short range from heavy elements, A., 551.
- Pettit, A. E. J. See Morgan, G. T.
- Pettit, R. E. See Bengston, H.
- Petty, J. J., pedestal rocks of granite in the southern Piedmont, A., 803.
- Petty, R. D., testing Russian bleaching clays, B., 655. [Clays for] contact filtration, B., 655.
- Petzold, W., hexachloroselenates, A., 241. Complex bromo-compounds of formally quadrivalent arsenic, A., 1258. Complex chloro- and bromo-compounds of trivalent arsenic, A., 1258.
- See also Sieverts, A.
- Peverelli, G. See Galimberti, G.
- Pevsner, S. See Michailova, O.
- Pew, A. E., jun., and Sun Oil Co., distillation of oil, (P.), B., 456. Preparation of crude oil for distillation into lubricating oils, (P.), B., 996.
- Peyer, W., comparative evaluations of ergot. II., B., 571.
- [with Hensel, L., Jaschik, H., and Rosenthal, K.], comparative evaluations of ergot. I., B., 491.
- and Rosenthal, K., determination of crude fibre for evaluation of drugs, B., 1035.
- Peyringhaus, W., Kupferberg, J., and Pemetzrieder, G., casting of alloys, (P.), B., 196.
- Peyrot. See Louis.
- Peyrot, P. See Canals, E.
- Peytral, (Miss) E. See Muller, J. A.
- Pezold, M., and Shriner, R. L., asymmetric syntheses. I. Action of optically active nitrites on cyclic ketones, A., 159.
- Pfähler, K. See Ruzicka, L.
- Pfahl, W., and Rotsch, A., detection of paprika pigment in sausages, B., 603.
- Pfahler, W. See Seekamp, H.
- Pfalzgraff, R. M. See Gen. Electric Co.
- Pfankueh, E. See Houben, J.
- Pfau, A., sesquiterpene ketones, A., 71.
- Pfauder Co. See Smith, H. E., and Todd, U. G.
- Pfeiffer, A., instrument for rapid determination of moisture content of hygroscopic materials [e.g., tobacco], B., 991.
- Pfeiffer, G., micro-determination of iodine in organic material, A., 330.
- See also Koller, G.
- Pfeiffer, H. (Nürnberg). See Eble, K.
- Pfeiffer, Hans. See Pummerer, R.
- Pfeiffer, P., Breith, E., Lübke, E., and Tsumaki, T., tricyclic ortho-condensed co-ordinate valency rings, A., 824.
- and Goyert, W., molecular size of "fatty" substances, A., 452.
- Hilpert, R., and Schneider, P., brazilin and hæmatoxylin. XII. Trimethyl-brazilinol and derivatives, A., 832.
- and Hoyer, H., complex compounds of ethylenic substances with platinum salts, A., 581. Brazilin and hæmatoxylin. XIII. Phenoxyvitramalic acids, A., 957.
- and Kleu, H., isomerism of halochromic compounds. I., A., 1052.
- and Lübke, E., [attempted] preparation of polyatomic co-ordination rings, A., 597.
- and Mällenheim, S. von, theory of metal hydrate ions. II., A., 606.
- Mällenheim, S. von, and Quehl, K., hexa-aquo salts of bivalent metals, A., 744.
- and Nakatsuka, Y., acid benzoates of zinc and cadmium, A., 392. Activation of complex salts in aqueous solution. III., A., 400.
- and Ochiai, E., differentiation of O- and N-methyl groups, A., 394. Molecular compound from pyrimidone and diallylbarbituric acid, A., 401.
- and Praetorius, W., replacement of bromine by chlorine in organic halides. II., A., 600.

- Pfeil, E., influence of the form of combination of manganese and iron on catalytic power of healthy and sour soils, B., 83.
- Pfeil, L. B. See Jones, D. G.
- Pfeilsticker, K., electrical conductivity of the expressed fluid from soils, B., 359. Determination of the annual available amounts of potassium and other nutrients in soil, I., B., 561.
- Pfäffner, E., and Radio Patents Corp., films, etc., for use in electric condensers, (P.), B., 594.
- Pfäffner, J. J. See Parke, Davis & Co., and Swingle, W. W.
- Pfister, K. H. T., alkylation of  $\alpha$ -naphthol-orange, A., 1044.
- Pfister, M. See Leuthardt, F.
- Pfizer & Co., C., crystalline anhydrous citric acid, (P.), B., 54. Preparation of hydrated citric acid, (P.), B., 260. See also Bernhauer, K., Currie, J. N., Pasternack, R., and Smith, J. L.
- Pfäum, W. See Manchot, W.
- Pfeger, J., Scheller, E., and Roessler & Hasslaeher Chem. Co., preparation of alkali-metal derivatives of organic compounds, (P.), B., 219.
- Pfeger, R. See Hess, K.
- Pflug, H. See Krieg, W.
- Pfuger, H. L. See Hammett, L. P.
- Pflugk, M., effect of decisive factors on oxidation of paraffin to fatty acids under atmospheric pressure and reaction mechanism of this oxidation, A., 1032. Oxidation of paraffin to fatty acids at atmospheric pressure, B., 819.
- Pfützer, G., intake of plants receiving increasing amounts of nutrients, with special regard to nitrogen, B., 403.
- Pfund, A. H., infra-red radiations from small particles, A., 998. Optical properties of metallic and crystalline powders, A., 1226. Filter for the study of the Raman effect, A., 1265.
- Pfundt, O., titration of sulphate ions by the visual conductivity method, A., 477. Conductometric titration of ammonium salts, zinc salts, and cyanates by the visual method, A., 582. Detection and recording of small amounts of carbon monoxide, particularly in purified contact hydrogen, B., 265.
- Pfundt, P., variation with pressure of residual ionisation in cosmic-ray measurements, A., 1101.
- Phair, R. A., and Kohnstamm & Co., Inc., H., laundry souring composition and method, (P.), B., 144.
- Pharmaceutical Corporation, Ltd. See Schulze, E.
- Phelps, F. P. See Brewster, J. F.
- Phelps, H. J., and Vallender, R. B., desorption of *n*-butylamine from charcoal, A., 563.
- Phelps Dodge Corporation. See Legrand, C., and Woodward, H. S.
- Phemister, D. B., Day, L., and Hastings, A. B., calcium carbonate gallstones and their experimental production, A., 301.
- Phifer, H. E. See Cantelo, R. C.
- Philadelphia Paint Club, influence of metallic driers on paints and varnishes, B., 435. Metallic driers, B., 975. Soaps. IV. Effect of metallic resinsates in varnish, B., 977.
- Philadelphia Quartz Co. of California, Ltd., crystallised hydrates of sodium metasilicate, (P.), B., 346.
- Philip, G. G. See Guthrie, J. M.
- Philipp, H., and Solvay Process Co., method of chlorinating liquids, (P.), B., 704.
- Philipp, K., and Pyridium Corp.,  $\alpha$ -[2:6-]diaminopyridine, (P.), B., 218.
- Philipp, Kurt, and Dörfel, F., simple, portable Wilson chamber, A., 1027. See also Meitner, (Frl.) L.
- Philippe, L., dye composition [for home-dyeing of silk], (P.), B., 1049.
- Philippi, E. See Gatterer, A., and Hernler, F.
- Philippi, K. See Nottbohm, F. E.
- Philippide, S., decomposition of mineral oil on heating under pressure, B., 211.
- Philippoff, W. See Eisenschitz, R.
- Philips, E. F., definitions of honey colour grades, B., 248.
- Philips, H. See Lloyd, (Miss) D. J.
- Philips, J. See Kuntzel, A.
- Phillipson, J. B. See Woodrow, J. W.
- Phillipson, T., growth of yeast, A., 427.
- Philippi, D. M., and Kay & Ess Co., enamel imitation-leather finish, (P.), B., 640.
- Phillips, A., and Brick, R. M., grain boundary effects as a factor in heterogeneous equilibrium of alloy systems, A., 669. Does the change in lattice constants on formation of mixed crystals depend on particle size? A., 1234.
- Phillips, E. F., utilisation of melczitose by bees, A., 88.
- Phillips, F. C., calculation of the reflectivities of sulphide ore minerals, A., 140. and Wooster, W. A., the "Pauly" method of determining refractive indices of liquids, A., 248.
- Phillips, G. W., effect of radiation on blood, A., 1189.
- Phillips, H. See Balfe, M. P., Harford, (Miss) M. B., Hills, H. W. J., Humphreys, F. E., and Kenyon, J.
- Phillips, J. B., industrial hydrogenation, B., 175.
- Phillips, J. G., treatment of clays to overcome drying defects, B., 705. Shapes from soapstone dust, B., 706.
- Phillips, J. W. C., and Mumford, S. A., dimorphism of aliphatic compounds. III. Ethyl margarate. IV. Ethyl esters [of fatty acids], A., 375. *n*-Aliphatic long-chain alcohols, A., 486.
- Phillips, R., and Hartman, W. W., preparation of thallous hydroxide, A., 1021.
- Phillips, (Miss) M., inversion of doublets in alkali-like spectra, A., 1221.
- Phillips, Maz, dry distillation of residue of waste sulphite liquor, B., 946. [Lignin] varnish, (P.), B., 1019.
- and Goss, M. J., lignin. VIII. Oxidation of alkali-lignin, A., 1051.
- Goss, M. J., and Browne, C. A., determination of uronic acids and methoxyl in certain plants and plant materials, A., 875.
- Phillips, R. O. See Müller, Fritz.
- Phillips, V. W., Ashworth, U. S., and Brody, S., growth and development. XXV. Course of energy and nitrogen metabolism in the domestic fowl during 48-day fasts, with special reference to temperament and training of the birds; notes on 60-day fasts in swine, A., 854.
- Phillips, W. M., pitting in nickel-plating solutions, B., 109.
- Cole, G. M., and Gen. Motors Corp., coating surfaces of iron and steel, (P.), B., 310.
- Phillips Petroleum Co., heat treatment of gaseous hydrocarbons, (P.), B., 8. See also Thomas, R. W.
- Phillis, E., and Mason, T. G., transport of carbohydrates in the cotton plant. III. Polar distribution of sugar in the foliage leaf, A., 988.
- Philpot, J. St. L. See Craxford, S. R., and Peters, R. A.
- Philpott, M. W., preparation and properties of a natural mineral black, B., 77.
- Phipps, T. E. See Frisch, R.
- Phosphate Acidulating Corporation, soluble phosphate from phosphate rock, (P.), B., 146.
- Phosphor Bronze Co., Ltd., Hyslop, C. G. T., and Wynn, E. E., steam-circulating jets for heating corrosive and erosive liquids, (P.), B., 371.
- Photiadis, P. D., determination of sulphate ion, A., 136. Determination of sulphurous acid in musts, red and sweet wines, B., 203. and Stathi-Photiadou, A. K., oil content of Greek grape seed, B., 1017.
- Phragmén, G. See Hägg, G., and Morral, F. R.
- Physical Chemistry Research Co. See Dupont, G. F. M.
- Pi-Suñer, A., and Farrán, M., presence of methylglyoxal in urine, A., 300.
- Pia, J., recent lime stones, A., 1137.
- Piasecki, S. See Dziewoński, K.
- Piatenko, A. I., effect of fertilisers on absorbing complex of chernozems, B., 84. Influence of fertilisers on adsorptive complex of soils, B., 562.
- Piatti, L., binary mixtures. II. Viscosity of naphthalene solutions, A., 19. Plasticity and tensile strength of rock-salt crystals stretched under water, A., 342. Plasticity of rock-salt in water and in the dry state, A., 589. Autoxidation of tetralin, B., 997.
- Piaux, L. See Miller, O., and Risseghem, (Mlle.) H. van.
- Piaw, C. S. See Ze, N. T.
- Piazza, G. See Belladen, L.
- Picard, H. See Lafitte, P.
- Picard, H. F. K. See Sulman, H. L.
- Piccard, A., and Meylan, L., apparatus for measuring radioactivity of substances irrespective of the exact position of the substance, A., 481.
- Piccardi, G., band spectra of the monoxides ScO, YO, and LaO, A., 552. New bands in the spectrum of vanadium monoxide, A., 997. Spectrum of molybdenic anhydride, A., 997. New band systems in the gadolinium oxide spectrum, A., 1102.
- Piccinini, C. See Vecchiotti, L.
- Pichard, G., analyses of straw and of humified products derived from it, B., 12. Humification [in soils], B., 1027.
- Pichard, M., analysis of milk chocolate, B., 42.
- Pichler, H., and Reder, R., formation of methyl alcohol by partial oxidation of methane and ethylene under high pressure, B., 378. See also Fischer, Franz.
- Pichot, action of electrolytes on kaolin suspensions, A., 1011.
- Pickard, J. See Rawson, M.
- Pickard, R. J., and Godwin, F. W., non-glucose reducing substances in diabetic blood, A., 526.
- Picker, W. See Peters, K.
- Pickett, L. W., crystal structure of diphenyl series, A., 451. X-Ray study of *p*-diphenylbenzene, A., 1235.
- Pickett, T. A. See Holley, K. T.
- Pickin, J., jun. See Modave, A.

- Pickup, *H.* See Harpic Manufg. Co.  
 Pickup, *L.* See Owen, *E. A.*  
 Picon, *M.*, thorium sulphide, *A.*, 38.  
 Thallous thiocarbonate: a specific reaction for thallium, *A.*, 245. Zirconium sulphides, *A.*, 918. Properties of zirconium sulphides, *A.*, 918.  
 Pictet, *A.*, synthesis of sucrose, *A.*, 260.  
 Pidgeon, *L. M.*, and Van Winsen, *A.*, sorption of water by asbestos fibre, *A.*, 1113.  
 See also Egerton, *A.*  
 Piechulek, *W.*, and Suszko, *J.*, optically active aryl-sulphoxyaliphatic acids, *A.*, 1288.  
 Piekara, *A.*, dielectric constants of disperse systems, *A.*, 123. [Validity of the Clausius-Mosotti law for emulsions], *A.*, 123. Dielectric constants of water and alcohol emulsions, *A.*, 123. Dielectric constant and electric polarisation of mixtures in the neighbourhood of the critical point, *A.*, 1240.  
 Piekarski, *M.*, determination of strength of animal glues, *B.*, 1071.  
 Pien, *J.*, Bachimont, *J.*, and Filhol, *R.*, *B. coli* in milk. III, *B.*, 409.  
 Pieper, *E. J.*, Smith, *D. F.*, Vogt, *C. C.*, and Armstrong Cork Co., distribution of binder over fibrous materials, (*P.*), *B.*, 1007.  
 See also Smith, *D. F.*  
 Pierce, *A.* See Rising, *M. M.*  
 Pierce, (*Miss*) *D. G.* See Booth, *H. S.*  
 Pierce, *H. B.*, Posson, *D. D.*, Du Vigneaud, *V.*, Morrison, *C. A.*, Du Vigneaud, *Z.*, and Pearce, *M. S.*, yeast ingestion and composition of the urine and feces, *A.*, 89.  
 Sheldon, *D. E.*, and Murlin, *J. R.*, conversion of fat into carbohydrate in the germinating castor bean. III. Chemical analysis and correlation with respiratory exchange, *A.*, 1341.  
 Pierce, *J. B., jun.*, and Barium Reduction Corp., dehydration of Glauber salt, (*P.*), *B.*, 785.  
 Carnes, *R. L.*, and Barium Reduction Corp., prevention of scum and efflorescence on brick and clay ware, (*P.*), *B.*, 628.  
 Pierce, *R. H. H., jun.* See Austin, *James B.*  
 Pierce, *S. C., jun.* See Larmour, *H. M.*  
 Pieroni, *A.* [with Ferrari, *M. G.*], products of hydrolysis of gluten, *B.*, 248.  
 Pierre, *J.* See Chevallier, *R.*  
 Pierre, *W. H.*, determination of equivalent acidity and basicity of fertilisers, *B.*, 760.  
 and Pohlman, *G. G.*, relation between composition of exuded plant sap and soil solution, *A.*, 649.  
 and Stuart, *A. D.*, soluble aluminium studies [in soil]. IV. Effects of phosphorus in reducing the detrimental effects of soil acidity on plant growth, *B.*, 1024.  
 See also Lignon, *W. S.*, and Pohlmann, *G. G.*  
 Pierson, *W. C.*, and Leagum Corp. of Delaware, lacquer-base, lacquer, and manufacture of same, (*P.*), *B.*, 1020.  
 Pierucci, *M.*, change in conductivity of metal [tungsten] foil by the action of an electric discharge, *A.*, 117.  
 Pieters, *H. A. J.*, determination of oil content of crude naphthalene, *B.*, 738. Determination of naphthalene in tar oil, *B.*, 738.  
 Pieters, *H. A. J.*, and Koopmans, *H.*, melting of coal during carbonisation process, *B.*, 132. Degree of carbonisation; bitumen, *B.*, 690. Characteristic features of the coking coals of Limburg (Holland), *B.*, 848. [Gas] interferometer as an aid in works control, *B.*, 737.  
 and Mannens, *M. J.*, determination of nitrogen in artificial fertilisers, *B.*, 35. [Titrimetric] determination of nitrogen in [ammonium sulphate] fertilisers, *B.*, 439.  
 Pieth, *P.* See Ruzicka, *L.*  
 Pietrzykowski, *T.* See Smoleński, *K.*  
 Pietrzykowska, *I.* See Dziewoński, *K.*  
 Pietsch, *E.* [with Seufferling, *F.*, Roman, *W.*, and Lehl, *H.*], formation of metallic hydrides by atomic hydrogen, *A.*, 1020.  
 Piettre, mechanisms of luminescence phenomena in the burning of combustible gases in air, *A.*, 999.  
 Piettre, *M.*, flocculation of colloidal dyes in the organism, *A.*, 313.  
 See also Boutaric, *A.*  
 Pietzner, *J.* See Senfleben, *H.*  
 Pietzsch, *K. F.*, and Nat. Aniline & Chem. Co., filter, (*P.*), *B.*, 370.  
 Piggott, *C. S.*, isotopes of uranium, thorium, and lead, and their geophysical significance, *A.*, 204. Radium content of ocean-bottom sediments, *A.*, 368.  
 Piggott, *H. A.* See Imperial Chem. Industries.  
 Pigman, *W.* See Isbell, *H. S.*  
 Pignot, *A.*, paints and varnishes containing tar oils, *B.*, 595.  
 Pigott, *M. G.* See Holmes, *A. D.*  
 Pigusov, *L.*, cracking of Fergana solar distillates, *B.*, 497.  
 Pijzel, *D.* See under Pyzel, *D.*  
 Pike, *E. W.*, evidence of the ionisation potentials of  $O_2$ , *A.*, 1097.  
 Pike, *O. W.* See Brit. Thomson-Houston Co.  
 Pike, *R. D.*, proposed manufacture of monopotassium phosphate at Green River, Wyo. I.—IV., *B.*, 345, 426. Monopotassium phosphate, (*P.*), *B.*, 669.  
 Little, *B. P.*, Carroll, *E. W.*, and Kalif Corp., non-oxidising heating furnace [for heating of metal casting moulds], (*P.*), *B.*, 234.  
 Piki, *J.* See Julian, *P. L.*  
 Pilat, *S. von*, Sereda, *J.*, and Szankowski, *W.*, mineral oil sulphonic acids, *B.*, 211.  
 See also Holzmann, *E.*  
 Pilgrim, *F. D.* See Hurd, *C. D.*  
 Pilko, *V. M.*, classification of chernozem soils in relation to silica mottling, *B.*, 881.  
 Pillatt, *A. E.* See Pillatt & Co.  
 Pillatt & Co., Ltd., and Pillatt, *A. E.*, incinerators, etc., (*P.*), *B.*, 2.  
 Pillay, *P. P.* See Siddiqui, *S.*  
 Pillewizer, *T.* See Mulli, *K.*  
 Pilling, *J. E.*, preparing chains for soldering and composition thereof, (*P.*), *B.*, 714.  
 Pilling, *N. B.*, and Internat. Nickel Co., non-magnetic iron-nickel-copper alloy, (*P.*), *B.*, 195.  
 See also Westinghouse Electric & Manufg. Co.  
 Pilojan, *A.*, Krivorutchko, *N.*, and Bach, *N.*, cataphoretic behaviour of gas-charged particles, *A.*, 1116.  
 Pilot Laboratory, Inc. See Rollhaus, *P. E.*  
 Pilton, *F. W. R.*, and Lane, *W. H.*, heat-insulating coverings, (*P.*), *B.*, 255.  
 Pilyugin, *G. T.*, purification of anthracene with simultaneous separation of highly concentrated carbazole, *B.*, 457.  
 Pilz, *M.* See Quadrát, *O.*  
 Piña de Rubies, *S.*, "quantitative" [spectral] lines of rhenium, *A.*, 440. Arc spectrum in air at normal pressure of neodymium for  $\lambda\lambda$  2400—3100 Å., *A.*, 880.  
 and Dorronsoro, *J.*, arc spectrum of rhenium between 2500 and 2320 Å. at normal pressure, *A.*, 992.  
 Pincass, *H.*, analysis of skin creams, *B.*, 332.  
 Pincherle, *L.*, perturbed series of spectrum of ionised aluminium, *A.*, 547. Intensity of the linear X-ray spectrum of tungsten, *A.*, 993.  
 Pinck, *L. A.*, reactions of *s*-di-(9-phenyl-9-fluorenyl)hydrazine, *A.*, 602.  
 Pinckard, *P. M.*, by-product coke oven, (*P.*), *B.*, 820.  
 Pincus, *L.*, effect of organ extracts on haemolysis, *A.*, 1066.  
 Pincussen, *L.*, effect of irradiation on metabolism of carbohydrates and its relation to vitamin-D, *A.*, 196. Stimulation of the excretion of lead by irradiation, *A.*, 1200.  
 Bayer, *V.*, Brück, *E.*, Görne, *J.*, and Rothmann, *A.*, effect of different kinds and quantities of light on metabolism in the pig, *A.*, 533.  
 and Brück, *E.*, analysis. XVII. Micro-determination of lead and zinc in organic material, *A.*, 1218.  
 and Takahashi, *S.*, metabolic changes produced by irradiation. XII. Effect of various types of radiation on glutathione content of the organs of irradiated animals, *A.*, 1200.  
 Pine, *W. B.*, treating argillaceous material, (*P.*), *B.*, 466.  
 Pine Institute of America, Inc. See Kesler, *C. C.*  
 Pineo, *O. R.*, application of spectrophotometric colour analysis to dyeing, *B.*, 782.  
 Pines, *B. J.*, silica bricks, (*P.*), *B.*, 270.  
 Pines, *H.*, preparation of *Δ*<sup>4</sup>- and *iso*-butene, *A.*, 1138.  
 Ping, *K.* See Sah, *P. P. T.*  
 Pingris-Spriet, Teatini process [for sugar], *B.*, 841.  
 Pinguet, (*Mlle.*) *A.*, hydroxyallantoin, *A.*, 284.  
 See also Bougault, *J.*  
 Pink, *L.*, and Meffert, *H.*, reaction product of salicylic acid and hexamethylenetetramine, (*P.*), *B.*, 251.  
 Pinkard, *F. W.*, Saenger, *H.*, and Wardlaw, *W.*, structure of amines of platinum chloride, *A.*, 1001.  
 See also Cox, *E. G.*  
 Pinkus, *A.*, and Aronsfrau, *C.*, determination of manganese by the Procter Smith method. II., *A.*, 245.  
 and Remakers, (*Mlle.*) *L.*, determination of manganese by the Procter Smith method. I., *A.*, 245.  
 Pinnow, *P.* See Bachmann, *W.*  
 Pinte, *J.* See Martin, *G.*  
 Pinte, *P.* See Raquet, *D.*  
 Pinter, *T.* See Režek, *A.*  
 Pinto, *J. A.*, purification of visceral extracts; new method of toxicological examination for alkaloids, *A.*, 421.  
 Piotrowski, *W. von*, and Winkler, *J.*, prevention of naphthalene deposits in gas conduits, *B.*, 611.



- Piper, G. H., discontinuities [in gaseous adsorption] and the nature of adsorbent solids, A., 457.
- Piper, W. H., and Clensol, Ltd., [domestic] water softening, (P.), B., 1038.
- Pipik, O. See Gerr, V.
- Pique, R., improvements in yield [of alcohol] by use of various yeasts, B., 1077.
- Pirani, M., electric furnaces in the chemical and metal industries, B., 635.
- Pirani, R. See Natta, G.
- Piratzky, W., relation between sugar content and attenuation. II. Sugar content of attenuated beers. III. Change in the sugar content during fermentation, B., 327, 568.
- Pirelli, Ltd. See Schidrowitz, P.
- Pirie, H. L., theory and practice of gasification of coal in furnaces of steam generators, B., 178. Theory and practice of combustion of solid, liquid, and gaseous industrial fuels compared with coal for steam raising, B., 179.
- Pirie, N. W., sulphur metabolism of the dog. XI. Metabolism of methionine and related sulphides, A., 305. Isolation of methionine and ergothioneine, A., 619. Oxidation of thiol compounds by hydrogen peroxide. II. Catalysis of oxidation of cysteine by thiocarbamides and thiolglyoxalines, A., 1018. and Hele, T. S., sulphur metabolism of the dog. XII. Preparation and metabolism of *d*-acetyl cysteine, A., 1325.
- Pirlot, A. See Gillet, A.
- Pirone, P. P., combating damping-off of spinach by seed treatment, B., 564.
- Newhall, A. G., Stuart, W. W., Horstfall, J. G., and Harrison, A. L., copper seed treatments for control of damping-off of spinach, B., 982.
- Pirrone, F., ergosterol, irradiated ergosterol, and alcoholic fermentation, A., 326. Constitution of cholesterol. IX. Bromo-derivatives of cholesterol, A., 390.
- Pirsch, J., relationships between constitution and mol. depression of the m.p. of organic compounds. I. and II., A., 172, 770. Isomeric compounds and their mixtures as solvents for micro-mol. wt. determination by the method of molar depression of f.p., A., 342. Mixtures of sterically similar compounds with similar groups as solvents for micro-mol. wt. determinations by the method of molar m.p. depression, A., 452.
- Pisa, M., pore statistics and sieve action in ultra-filters and animal membranes, A., 672.
- Pisarenko, I. See Panasiuk, V. I.
- Pisarev, A. G., electrochemistry of ethereal solutions. IX. Acetic acid-ethyl ether, A., 354.
- Pisarshevski, L. V., theory of heterogeneous catalysis, A., 1018.
- Pischinger, E., phosphorus compounds of plants. VII. Solubility of phosphorus compounds of hemp-seed, A., 874.
- Pishavikar, D. G. See Shah, S. V.
- Piskur, M. M. See Johnson, Warren C.
- Pistorius, A., coal-water-gas producers on coke-oven plants, B., 531.
- Pisula, F. See Chrzaszcz, T.
- Pitcairn, R., crystallisers, (P.), B., 897.
- Pitcaithly, N. P., and Worley, F. P., distribution of copper in the Karaka tree (*Corynocarpus laevigata*), A., 650.
- Pitman, A. L. See Harris, C. R.
- Pitman, G., ether extract method for paste-like samples [olive-pomace pastes, etc.], B., 513.
- Pitman, I. S. See Code, G. A.
- Pittman, C. U. See Traxler, R. N.
- Pittsburgh Plate Glass Co. See Lynn, G., and Raleigh, W. P.
- Pittsburgh Research Corporation. See Moore, W. E., and Simpson, G. L.
- Piutti, P. See Zelle, K.
- Pivovarsky, E., Božid, B., and Söhnechen, E., tensile strength and reduction in area of cast steel at 650–1450°, B., 919.
- and Heinrichs, W., influence of the slag on cast iron in the electric furnace, B., 192.
- and Kleinfenn, W., effect of absorption of nitrogen and oxygen in the fusion welding [of steel], B., 968.
- See also Bornhofen, O., and Heimes, F.
- Pizlo, J. See Marchlewski, L.
- Pjatenko, A. L. See under Piatenko, A. I.
- Plaček, A., production of ethyl alcohol from wood or other cellulose-containing materials, (P.), B., 1031.
- Plachotnik, M. S. See Nakmanovitsch, M. I.
- Placinteau, J. J., mass of the neutron, A., 660. Constitution of neutrons, positive electrons, and protons: existence of negative protons, A., 995. Theory of the neutron, A., 995.
- Placzek, G., and Teller, E., rotation structure of Raman bands of polyatomic molecules, A., 446.
- See also Amaldi, E.
- Plake, E., heats of dilution of solutions of strong electrolytes, and Nernst's association hypothesis, A., 127.
- Planck, M., liquid junction of dilute electrolytes. III., A., 785.
- Planckh, R. See Suida, H.
- Plank, H. K., removal of spray residue from canning peaches sprayed for peach-twig borer control, B., 1032.
- Plank, R., viscosity of gases and vapours, A., 1109. Freezing time of ice and aqueous foods, B., 90.
- Planovski, N. I., and Rytshkova, E. K., determination of optimum temperature for dyeing with substantive and acid dyes, B., 686.
- Plant, F., and Rudy, H., immunisation with lecithin from human urine, A., 82.
- Plant, R. A., Brooks, M. E., and Dow Chem. Co., [foundry] moulding composition and its treatment, (P.), B., 1016.
- Plant, S. G. P., and Tomlinson, (Miss) M. L., action of halogens on polycyclic indole derivatives. III., A., 513. Additive reactions of the indole nucleus, A., 1057.
- See also Fennell, R. C. G., and Hall, H. I.
- Plant Rubber & Asbestos Works, Inc. See Stadtfeld, J. A.
- Plantefol, A. See Rathery, F.
- Plantefol, L., simple eudiometer, A., 1193. Apparatus for gas microanalysis for study of respiratory exchange, A., 1344.
- Planz, N. See Salmang, H.
- Plastix Corporation. See Meigs, J. V.
- Plate, A. F. See Zelinski, N. D.
- Platt, B. S., and Dickinson, S., technique of glass-electrode measurements, A., 1027.
- Platt, H., and Celanese Corp. of America, [sized] textile material, (P.), B., 545.
- Platt, (Miss) M. E., and Hibbert, H., carbohydrates and polysaccharides. XLIII. Cyclic acetal and ketal formation from *o*-phenylglycerol as further examples of the "ring partition principle," A., 398.
- See also Schroeder, E. F.
- Platt, S., Street, W. O., and Bury Felt Manufg. Co., felt fabrics or bodies, (P.), B., 16.
- Platt, W., higher *versus* lower mathematics in interpreting baking quality [of flour], B., 602.
- and Kratz, P. D., measuring and recording characteristics of test sponge cakes, B., 282.
- Platten, O. See Pestemer, M.
- Plattner, F., occurrence of a substance resembling acetyl-choline in skeletal muscle. III., A., 1066.
- and Kranich, E., occurrence of a substance similar to acetyl-choline in skeletal muscle. I. and II., A., 296.
- Platzmann, C. R., physical changes in cement mortar caused by carbon dioxide, B., 148. Earth and mineral pigments in the building industry, B., 355.
- Plauson, H., manufacture and use of liquid binding medium for paints and varnishes, (P.), B., 676. Oils obtained from rubber, (P.), B., 930.
- and Radiochemisches Forschungs-Inst. G.m.b.H., caoutchouc lacquers or varnishes, (P.), B., 1020.
- Plaut, H. C., statistical methods in process control, B., 607.
- Player, E. See Sterling Metals, Ltd.
- Pleass, (Miss) W. B., antimony electrode. IV. Measurement of  $p_H$  with glass and antimony electrodes in tannin solutions, B., 358.
- See also Lloyd, (Miss) D. J.
- Pleehner, W. W. See Hixson, A. W.
- Pleschkova, S. See Tintinnikov, B.
- Pletenev, S. A., and Kusnezova, V. V., electrodeposition of alloys. I. Nickel-cobalt alloys, A., 472.
- See also Lainer, V. I.
- Pletnik, J. J. See Nakhmanovitsch, M. I.
- Plettinger, E. See Bruhl, A.
- Plice, M. J. See Wilson, B. D.
- Plimmer, R. H. A., Raymond, W. H., and Lowndes, J., nutrition. XII. Comparative vitamin-B<sub>1</sub> values of animal foodstuffs, A., 646.
- Plisov, A. K., preparation of diacetyl, A., 1144.
- Plushkin, E. Z. See Korsheniovski, G. A.
- Plötner, K. See Abderhalden, E.
- Plötze, E., dielectric constants of aqueous solutions at very high frequencies, A., 1243.
- See also Fischer, Hans.
- Plotnikov, V. A., and Graziansky, N. N., plating of metallic surfaces with aluminium in an aluminium chloride-sodium chloride melt, B., 352.
- and Jankelevitsch, Z. A., electrochemistry of the system  $AlBr_3$ -CuBr in toluene solution, A., 785.
- and Kiketz, V. A., electrochemistry of the systems  $AgBr-AlBr_3$  and  $CuBr-AlBr_3$  in ethylene dibromide, A., 785.
- and Scheka, I. A., system  $AlBr_3$ -SbBr<sub>3</sub> in benzene solution, A., 785.
- Ploum, H. See Körber, F.
- Plücker, W., and Gautsch, H., chlorination and dechlorination of drinking water, B., 1088.
- and Keilholz, W., determination of chlorogenic and caffeic acids, B., 1081.

- Plummer, W. B., and Standard Oil Co. of Indiana, reconditioning alloy steel [used in petroleum oil refining], (P.), B., 712.
- Plusechnik, E. See Danilov, V.
- Plykrome Corporation, corrosion-resistant metal [iron or steel] bodies such as plates, rods, or tubes, (P.), B., 310.
- Plymate, H. B. See Moore, C. U.
- Pobofil, F. See Herasymenko, P., Kříža, A., and Valenta, E.
- Poch, E. See Lipschütz, A.
- Poehner, W. See Masing, G.
- Poehin, H. S., and Russell, Arthur, pulverising mills, (P.), B., 656.
- Pochinok, K. N., determination of strontium as oxalate, A., 583.
- Pochivalov, V., should dry or dissolved soda be used in production of fluorides? B., 864.
- Pockels, A., dependence of wettability of solid substances on time of contact, A., 223.
- Podbielniak, W. J., apparatus and methods for precise fractional-distillation analysis. II. Laboratory columns for precise and rapid fractionation of gaseous and liquid samples. III. Apparatus for precise high-temperature fractionation of complex liquid mixtures. IV. Standardisation of low-temperature fractionation-analysis apparatus and method of using automatic recording and control, A., 480, 690.
- Podhorsky, R., salt effect in corrosion of metals, A., 1125, 1251. Theory and practice of ammonia oxidation, B., 145.
- Podmore, W., firing of ceramic ware, (P.), B., 106.
- Podolskaja, M. See Goldovski, A.
- Podszus, E., conductivity of highly insulating oxides and nitrides at very high temperatures, A., 338. Colloidal solutions in metals, A., 460. Brownian movement visible with the unaided eye, A., 460. Preparation of boron and its compounds with nitrogen and carbon, A., 474. Mechanical subdivision to colloidal dimensions, A., 901.
- See also Leschewski, K.
- Podurovskaja, O. M. See Kagan, M. Y.
- Poe, C. F., Cooley, M., and Witt, N. F., effect of preservatives on determination of sucrose by the invertase method, B., 1076.
- and Fehlmann, H. A., vitamin-A content of naturally coloured nut margarines, B., 489. Action of hexylresorcinol on bacteria in food products, B., 764.
- and Field, J. T., fermentation of rare sugars by members of the colon-aerogenes groups of bacteria. I. Trehalose, A., 317.
- Field, J. T., and Witt, N. F., fermentation of polyhydric alcohols by the colon and aerogenes groups of bacteria. I. *d*-Sorbitol, A., 1033.
- and Stehley, P. S., Fröhde's test for morphine, A., 859.
- Poe, F. M., and Amer. Brake Shoe & Foundry Co., [repetition] mould facing, (P.), B., 711.
- Pöll, H., mineral oil asphalts, B., 134.
- See also Suida, H.
- Pölguter, F., and Dents. Edelstahlwerke A.-G., steel alloy, (P.), B., 632.
- Poesch, G. H. See Laurie, A.
- Poetter, H. See Diepschlag, E.
- Poffenberger, N. See Dow Chem. Co.
- Pogány, B., Zeeman effect of the infra-red arc lines of krypton, A., 1219.
- Poggendorf, A. See Rupp, E.
- Pogodin, S. A., ultra-light alloys of high strength, B., 832.
- See also Selivanov, B. P.
- Pogorelov, A. D. See Zapevalov, G. G.
- Pogozhev, P. M., wetting agents [for textiles], B., 667.
- Pohl, W., creosote from wood tar as wetting agent in dry mercerisation, B., 303.
- Pohlant, E., and Harlos, W., determination of iron carbonyl in gases, A., 43.
- and Mehl, W., physical properties of ethylamine, A., 453.
- Pohle, F. See D'Ans, J.
- Pohle, K. A., determination of viscosity of slags, B., 1011.
- Pohle, W. D. See Selvig, W. A.
- Pohlman, G. G., soluble aluminium [in soils]. III. Relationship of nitrification and sulphur oxidation to the aluminium- and hydrogen-ion concentration of very acid soils, B., 803.
- and Pierre, W. H., phosphorus concentration of the exuded sap of maize as a measure of the available phosphorus of the soil, A., 650.
- See also Pierre, W. H.
- Pohlman, R., infra-red spectra of ammonium salts in the region of anomalous specific heats, A., 112.
- See also Hettner, G.
- Poindexter, C. A. See Bruger, M.
- Pokrowski, G. I., theory of friction in coarsely disperse substances, A., 460.
- and Bulyschev, V. G., mechanical properties of disperse systems. I. Deformation of subsoils by pressure, A., 901.
- Polak, F., sugar-factory effluents and their purification, B., 1038.
- Póányi, M., electrolytic isolation of the heavier hydrogen isotope by the method of G. N. Lewis, A., 658.
- Gaseous reactions, A., 1248.
- See also Bergmann, E., Bogdandy, S. von, Cremer, E., Curry, J., Gilfillan, E. S., Hartel, H. von, Horn, E., and Meer, N.
- Pole, G. R. See Schurecht, H. G.
- Polesitski, A. See Ratner, A.
- Polhamus, L. G., rubber content of various species of goldenrod, A., 1215.
- Policard, A., distribution of fixed mineral matter in mammalian spermatozoa, A., 968. Fixed mineral matter of seminal elements during spermatogenesis, A., 1184. Copper in the normal and pathological liver, A., 1190.
- See also Morel, A.
- Polikarpova, K. N. See Mizutsch, K. G.
- Polin, H. S., and Polin, Inc., forming an amalgam, (P.), B., 473. Electrochemical current interrupter, (P.), B., 475.
- Polin, Inc. See Polin, H. S.
- Politzschuck, A. B. See Scheinkmann, A. J.
- Poll, H., sexual hormone and adrenals, A., 1338.
- Pollak, Leo, and Fehér, G., influence of insulin, adrenaline, and thyroxine on galactose assimilation, A., 1209.
- Pollak, Leopold, simplified expression for determination of free acid in leather by Innes' difference value, B., 1023.
- Polland, W. S., histamine test meals, A., 849. Blood in unexplained gastric acidity, A., 1069.
- Pollanz, A. See Fränkel, Ernst.
- Pollard, E. C., heights of nuclear potential barriers, A., 205. Heights of nuclear potential barriers and nuclear structure, A., 443. Entry of the disintegrating  $\alpha$ -particle into the nitrogen nucleus and a general relation between heights of nuclear barriers and atomic number, A., 551. Law of force between neutron and proton, A., 552. Protons produced in artificial disintegration of the nitrogen nucleus, A., 1100.
- Poller, K., bacterial degradation of choline, A., 753.
- Polleri, M. See Marques, A.
- Pollitt, A. See Hewson, G. W.
- Pollitzer, F., use of low temperatures in separation of constituents of gaseous mixtures, B., 47.
- Pollock, J. E. See Shaffer, S. S.
- Pollock, R. C., and Union Oil Co. of California, dehydration of emulsified oils, (P.), B., 9. Decolorisation and neutralisation of oils, (P.), B., 9. Revivification of clays [containing acid sludge from treatment of oils], (P.), B., 10.
- Pollock, R. T., and Universal Oil Products Co., apparatus for converting hydrocarbons, (P.), B., 539. Treatment of [heavy] oil, (P.), B., 854.
- Polonovski, Michel, effect of ingestion of glucose on composition of human milk and butter, A., 524.
- Bizard, G., and Boulanger, P., action of adrenaline, insulin, and phloridzin on urinary ammonia in the dog, A., 321. Pancreatic ammoniophancresis, A., 623. Blood- and urine-ammonia; formation of ammonia in the kidney, A., 1187.
- and Laurie, P., content of cholesterol, unsaponifiable fraction, and lipins in brain of lunatics, A., 739.
- and Lespagnol, A., sugars of human milk, A., 626. Iodometric determination of sugars in human milk, A., 1186.
- Lespagnol, A., and Warembourg, H., physiological variations in concentration of various sugars in human milk, A., 1186.
- and Thomas, M., seasonal variations and annual cycle of constants of butters in the north of France. I. and II., B., 409, 522.
- See also Polonovski, Max.
- Polonovski, Mar, and Polonovski, Michel, amine oxides of alkaloids. IX. Action of hydrogen peroxide on narcotimethine and hydrastimethine; stereochemistry of hydrastine and narcotine, A., 728.
- Polonovski, Michel, and Lemette, A., synthesis of glucoalkaloids, A., 406.
- Polossin, V. See Domontovitsch, M.
- Poltz, H., dipole moments of some benzene derivatives, A., 555.
- Polvani, G., change in electrical conductivity of a metal foil dependent on its electric charge, A., 117.
- Polyanskaja, G. B. See Sachanov, A.
- Polynov, B. B., processes of salinisation and desalinisation and the salt-profile of soils, A., 1031.
- and Filosofov, B. I., modification of solutions during their capillary rise in soils, B., 1025.
- Polyphonwerke Akt.-Ges. See Hanseatische Mühlenwerke A.-G.

- Polysius Akt.-Ges., G., burning of sludgy materials, (P.), B., 368.
- Lepol Internat. Patentverwertungs G.m.b.H. and N. V. Solopol Ingenieurs Bureau tot Exploit. van het Systeem Polysius, firing, roasting, and sintering of cement, lime, or similar material, (P.), B., 229.
- Polysu, C., impregnation of wood, (P.), B., 191.
- Pomeroy, R. D., Lacey, W. N., Scudder, N. F., and Stapp, F. P., rate of solution of methane in quiescent liquid hydrocarbons, B., 949.
- Pommer, E. See Gehring, A.
- Pomothy, R. von, physiology of the surviving mammalian heart. VII. Consumption of sugars by the cat's heart, A., 630.
- Pomp, A., and Enders, W., durability of steels for superheater tubes, B., 967.
- Ponder, E., kinetics of hæmolysis in colloidal silicic acid-complement systems, A., 411.
- Pongratz, A., Griengl, F., and Cecelsky, J., perylene and its derivatives. XXXVIII. Heats of combustion of perylene derivatives, A., 466.
- and Zinke, A. [with Gesell, E., and Hanswirth, G.], perylene and its derivatives. XXXIX., A., 508.
- See also Dadiou, A., Kohlrausch, K. W. F., and Kopper, H.
- Ponomarev, I. F., can glass be considered a colloid? B., 704.
- Ponte, A., and Allegrini, R., determination of iron and manganese in vegetable [tanning] products, B., 597.
- Ponte, D. See Angeletti, A.
- Ponthus, P., action of ultra-violet rays on aqueous solutions of gelatin; modification of physico-chemical properties; probable photolysis, A., 730.
- Pontoppidan, C., hydraulic cement, (P.), B., 468.
- Ponzio, G., dioximes. XCVII., A., 287.
- Reaction between diazonium salts and trinitromethane, A., 1156.
- and Biglietti, F., dioximes. XCIX., A., 726.
- Pool, C. L. See Turner, J. V.
- Pool, M. L. See High, M. E.
- Poole, H. H., and Atkins, W. R. G., reversal of the current from a cuprous oxide photo-cell in red light, A., 209.
- Reversal of current in rectifier photo-cells, A., 447.
- Suitability of rectifier photo-cells for the measurement of daylight, A., 1135.
- See also Atkins, W. R. G.
- Poole, J. H. J., radioactivity of samarium and formation of hibernium haloes, A., 551.
- Poole, J. W., and Mangelsdorf, T. A., solubilities of [lubricating] oil and waxes in organic solvents. III., B., 7.
- Poole, R. F., effects of formaldehyde on *Ceratostomella fimbriata* and the sweet potato, B., 885.
- Pope, C. G., production of toxin by *C. diphtheriae*. I. Energy sources. II. Effects produced by additions of iron and copper to the medium, A., 97.
- Pope, J. C., and Standard Oil Development Co., sludge-resisting hydrocarbon oils, (P.), B., 695.
- Pope, M. N., catalase activity and respiration in leaves of growing barley, A., 543.
- Pope, (Sir) W. J. See Dodds, E. C.
- Popesco, (Mme.) A. See Ionesco-Matiu, A.
- Popesco, C. See Ionesco-Matiu, A.
- Popesco, I. See Iftimesco, G.
- Popesco, M. See Vladesco, R.
- Popescu, D. M., and Motoc, D., Rumanian wines, B., 762.
- Popescu, O. G. See Ionescu, M. V.
- Popescu, V. D. See Angelescu, E.
- Popkin, W. E., technique of fur preparation, B., 161.
- Popofe, S. See Hajda, L.
- Popov, A. M., hydrogenation of naphthalene, A., 386.
- Popov, D. N., determination of chloroform in alcohol-water mixtures, A., 292.
- Chloramine-B, B., 259.
- Popov, M., and Stefanova, M., increased respiration coefficient of stimulated seeds, A., 1214.
- Popov, R. B. See Baimakov, Y. V.
- Popova, A. N. See Dolgov, B. N.
- Popova, T. A. See Kataigorodski, I. I.
- Popova, T. M. See Spitzin, N. I.
- Popova, V. T. See Ominin, L. V.
- Popovici, (Mlle.) L., reduction of semicarbazones, thiosemicarbazones, diketotriazines, and ketothiontriazines of  $\alpha$ -ketonic acids, A., 272.
- Popoviciu, G., and Nitescu, I. I., effect of irradiated ergosterol preparations in tetany of parathyroidectomy; internal secretory relationships of the antirachitic and toxic principle, A., 304.
- See also Nitescu, I. I.
- Popp, M., is the action of potash manures increased by the presence of humus? B., 36.
- Report of [German] committee on the examination of fertilisers, B., 438.
- Popper, E., preparing metals and alloys from metallic compounds [e.g., aluminium from its chloride], (P.), B., 714.
- Popper, K. See Bondy, H.
- Popper, M., Teitel-Bernard, A., Raileanu, C., and Dinischiotu, G. T., *in vitro* action of tuberculin, A., 1207.
- Poppov, I., supplementary feeding with chalk and calcium phosphate with special reference to calcium and phosphate contents of Bulgarian feeding-stuffs, B., 523.
- Effect of excess of calcium carbonate on digestibility of feeding-stuffs and on the calcium, phosphorus, and nitrogen exchange, B., 1033.
- Poputnikov, F. A. See Chizhevski, N. P.
- Porai-Koschitz, A. [with Efimov, A., Schapiro, J., Riskin, J., Gorelik, N., Peskin, M., Weller, E., Sokolova, N., and Vasilieva, E.], theory of the dyeing process, B., 666.
- and Itenberg, S. M., furfuraldehyde sulphoxylate, A., 280.
- Kudrjatzev, N. A., and Mashkilleison, B., first product of condensation of furfuraldehyde with phenol, A., 1166.
- Porcelain Enamel & Manufacturing Co. of Baltimore, production of enamelled articles having a multi-coloured appearance, (P.), B., 787.
- See also Turk, K.
- Porges, N., chemical composition of *Aspergillus niger* as modified by zinc sulphate, A., 188.
- Porges, O., and Adlersberg, D., carbohydrate metabolism in Addison's disease, A., 1188.
- Porret, D. See Berthoud, A.
- Porritt, B. D., Dawson, T. R., Scott, J. R., and Brit. Rubber Manufs. Research Assoc., rubber articles resistant to oil, etc., (P.), B., 722.
- Porritt, B. D., and Scott, J. R., radiographic physical, and chemical examination of some ebonite samples, B., 838.
- Scott, J. R., and Brit. Rubber Manufs. Research Assoc., rubberised and similar textile articles, (P.), B., 913.
- Portals, Ltd. See Knaggs, J.
- Porter, A. W., surface tension near the critical point, A., 115.
- Calculation of surface tension from experiment. I. Sessile drops, A., 250.
- Capillary ascent or depression of liquids in cylindrical tubes, A., 1002.
- Porter, E. F. See Mueller, J. H.
- Porter, F., and Atmospheric Nitrogen Corp., [production of hydrogen by] decomposition of hydrocarbons, (P.), B., 615.
- and Continental Oil Co., apparatus for manufacture of benzol and by-products from a gas containing either butane, propane, or ethane, or portions of each, (P.), B., 903.
- Porter, F. R., shop tests on reboiling [in enamelling iron], B., 705.
- Porter, H. C., improvement of design of [high-temperature] coal-carbonising equipment, B., 98.
- Porter, J. L., method for obtaining data for the sorption of vapours by solids, A., 457.
- and Swain, R. C., specific heat of sorbed matter, A., 898.
- See also McBain, J. W.
- Porter, J. M., Handy, G. W., and Structural Gypsum Corp., cleaning of [gypsum] mould parts, (P.), B., 789.
- Porter, (Miss) M. D. See Brady, O. L.
- Porter, P. W., and Needham, R. E., colloidal silica, (P.), B., 547.
- Porter, S. R. M., portable hardness testing machine, with diamond pyramid indenter, B., 175.
- Porter-Levin, T., calcium and phosphorus metabolism of normal pre-school children. I., A., 1076.
- Porteus, G., disintegrating or grinding apparatus, (P.), B., 847.
- Portevin, A., characterisation of mechanical properties of castings of grey cast iron, B., 389.
- Steels resistant to chemical action, B., 509.
- Determination of loss in weight in corrosion tests, B., 871.
- and Bastien, P., physical and mechanical properties of Mg-Al-Cu alloys rich in magnesium, A., 455.
- Fluidity of ternary alloys, A., 670.
- Flowability of alloys: its relation to the solidification interval, B., 24.
- Bastien, P., and Bonnot, M., study of corrosion of metals, and corrosion of magnesium alloys, B., 791.
- and Bonnot, M., ternary alloys of copper, silicon, and magnesium, A., 772.
- and Cymboliste, M., use of the microscope in study and control of electrolytic deposits, B., 971.
- and Perrin, R., inclusions in steel, B., 831.
- Prétet, E., and Guitton, L., continuous measurement of slight corrosion [of steels] accompanied by evolution of gas, B., 969.
- See also Castro, R., Perrin, R., and Sanfourche, A.
- Portier, H., cast iron with a low carbon content, B., 869.
- Portmann, J. M. See Bamann, E.
- Porzellanfabrik Kahla, Zweigniederlassung Freiberg, firing of ceramic masses, (P.), B., 628.

- Pos, E. See Bruns, B.
- Poschenrieder, H. See Niklas, H.
- Pose, H., and Heidenreich, F., proton emission by excitation of the boron nucleus by  $\alpha$ -rays, A., 883.
- Posepal, V., atomic radius of carbon in diamond, A., 213, 767.
- Posnjak, E. See Bowen, N. L., and Tunell, G.
- Pospišil, R. See Qnadrát, O.
- Possanner von Ehrenthal, E., determination of strength [of paper pulp], B., 223.
- and Weber, A., photometric determination of consistency of half-stuff and beaten stock, B., 698.
- Possenti, A., desulphurisation of iron and steel by acid and basic slags, B., 1011.
- Posson, D. D. See Pierce, H. B.
- Post, H. W., reaction between aliphatic orthoformates and acetone, A., 1273.
- and Erickson, E. R., radical interchange of alkyl orthoformates, A., 1142.
- Post, W. E. See Hoffman, W. S.
- Poste, E. P., chemical limo from oölite, B., 546. Blistering of cast-iron enamel. II., B., 627.
- Postel, C. See Internat. Bitumenoil Corp.
- Posternak, S., and Posternak, T., phosphorus nucleus of ichthulin of the pike, A., 967.
- Posternak, T. See Posternak, S., and Wieland, H.
- Posthumus, K., application of the van 't Hoff-Le Chatelier-Braun principle to chemical equilibria, A., 227. Reaction velocities, A., 469.
- Postlethwaite, J. P. See Low Temperature Carbonisation, Ltd.
- Postnikov, V. F., and Kirillov, I. P., removal by activated charcoal of traces of hydrogen sulphide from hydrogen for ammonia synthesis, B., 702.
- Potapenko, S. V., thermal decomposition of limestone, dolomites, and magnesites, B., 668.
- Potapov, A. I., soil acidity as a phytopedological factor, B., 278.
- Potapova, A. M. See Bochar, A. A.
- Potick, D., and Re, P. M., tryptophan content of the thyroid gland and other organs after a meat meal, A., 183.
- Potlatch Forests, Inc. See Prentiss, S. W.
- Potonié, R., and Wicher, C., origin of coal and mineral oil, A., 370.
- Potter, D. J. See Raiford, L. C.
- Potter, F. M., and Williams, H. B., [physical constants of] *o*-cresol[*-cineole* compound], B., 124.
- Potter, G. F. See Percival, G. P.
- Potter, G. J. See Mitchell, C. R.
- Potter, J. A. See Westinghouse Electric & Manufg. Co.
- Potter, M. T., vitamin-A content of yellow-tissued and white-tissued apples, A., 432. Winesap apple as source of vitamin-C, A., 542.
- and Dickson, M. A., vitamin-A in six varieties of frozen cherries, A., 541.
- and Overholser, E. L., vitamin-C content of the winesap apple as influenced by fertilisers, B., 522.
- Potter, N. M. See Dawe, A.
- Potter, P. D., Metzger, R. T., and Sprague, Warner & Co., beverage syrup tea, (P.), B., 171.
- Potter, R. S., sterilisation of jam, B., 1032.
- Potthoff, O., and Michels, C., centrifugal machine for gas separation; separation of gases by centrifugal means, (P.), B., 609.
- Potts, G. See Standard Oil Development Co.
- Potts, G. H., varnishes and paints, (P.), B., 639.
- Potts, J. C. See Rollefson, G. K.
- Potts, W. W. See Long, T. A.
- Poucher, W. A., pure rose otto, B., 92.
- Poulson, C. A., design and operation of continuous vertical retorts, B., 48.
- Poultney, F. C., and Whiddington, R., energy of the beams in electron diffraction, A., 550.
- Pouyaud, C., electrolyzers for manufacture of chlorine and alkaline hydrates, (P.), B., 926.
- Pouzgues, J. See Sazerac, R.
- Povenz, F. See Scheibe, G.
- Powe, W. A., the Oliver-Campbell filter compared with the plate-and-frame press in the cane-sugar factory, B., 325.
- Powell, A. D., colour reaction for bismuth, A., 1264.
- Powell, Alan R., Davies, E. C., Scott, Arthur W., and Johnson, Matthey & Co., preparation and operation of platinum-plating baths, (P.), B., 512.
- Powell, Alfred R., and Russell, C. C., determining the dustiness of coal and coke, B., 1040.
- Powell, C. E., Schulze, H. A., and Swanson, E. E., standardisation and stabilisation of ergot preparations, B., 43.
- Powell, C. F., and Brata, L., positive ion emission from oxide catalysts, A., 333. Emission of metallic ions from oxide surfaces. II., A., 1098.
- Powell, G. See Goodman, M.
- Powell, H. M. See Hartley, E. G. J.
- Powell, S. G., Murray, H. C., and Baldwin, M. M., condensation of butan- $\beta$ -one with  $\alpha$ -aliphatic aldehydes, A., 491.
- Powell, S. T., effect of salinity on value of water for industrial purposes, B., 367.
- Power, F. W. See Ambrose, A. M.
- Power-Gas Corporation, Ltd., and Rambush, N. E., manufacture of a gas low in hydrocarbons, and approximating in composition to blue water-gas, from bituminous coal, lignite, peat, etc., (P.), B., 580.
- Rambush, N. E., and Grisenthwaite, A. T., combustible gaseous mixtures, (P.), B., 534.
- Powers, D. H. See Du Pont de Nemours & Co., E. I.
- Powers, H. H., and Reis, F., effect of insulin on amino-acid- and urea-nitrogen in laked and unlaked blood, A., 985.
- Powers, L. D. See Blicke, F. F.
- Powers, P. O. See Romaine, E. van.
- Powers, W. L., chemical characteristics of Northwestern peat and muck soils of U.S.A., A., 253. Role of sulphur in plant nutrition, B., 84. Removal of soluble salts from virgin black alkali soil, B., 241.
- Powley, W. See Powley & Sons, Ltd., R.
- Powley & Sons, Ltd., R., and Powley, W., filtering apparatus for liquids, (P.), B., 176.
- Pozdena, L., changes in soil reaction during a year and ratio between  $p_H$  value in water and in potassium chloride, B., 118.
- Pozerski, E., digestion of raw starch, A., 88, 1080.
- Pozhiltzeva, E. N. See Petrov, A. D.
- Pozin, M. E., regeneration of sulphuric acid used in drying of chlorine, B., 865.
- Pozzi, L., alleged activators of proteolysis in tumours, A., 1070. Proteolytic enzymes in organs of scorbutic guinea-pigs, A., 1072.
- See also Rondoni, P.
- Pozzi, M. See Florence, G.
- Pozzi-Escot, E., sulphur in agriculture, B., 1028.
- Praagh, G. van, detection of adsorbed gas films on heated filaments, A., 898.
- Praetorius, W. See Pfeiffer, P.
- Prager, A., dependence of oxygen utilisation of the intercostal nerves of the ox on the oxygen tension, A., 419.
- Prakash, O. See Bhattacharya, A. K.
- Prakash, S., stability of lithium urate sols, A., 567. Inorganic jellies, A., 777. Preparation and properties of zirconium sulphosalicylic acid jellies, A., 1011. Continuity of phases during the sol-gel transformation, A., 1117. Theory of blood clotting. II. Synthesis of blood in presence of acids and alkalis, A., 1182.
- See also Ghosh, Satyeshwar.
- Prakke, F., and Stiasny, E., action of thiosulphate on dilute acid solutions, A., 919.
- See also Stiasny, E.
- Prandtl, W., separation of rare earths by basic precipitation. X. Preparation of pure ytterbium oxide, A., 37. Separation of hafnium and zirconium. I., A., 38.
- Prange, G., iodine content of iodised common salt, B., 1055.
- Pranke, E. J., cyanides, (P.), B., 146.
- See also Grangers Manufg. Co.
- Prasad, B., viscosity of liquids, their b.p. and critical temperatures, A., 770. Viscosity of liquids and dependence of viscosity constants on constitutional factors, A., 770. Viscosity of fused salts and Andrade-Sheppard formula for the viscosity of liquids, A., 1006.
- Prasad, M., gelation of silicic acid, A., 779. X-Ray investigation of crystals of stilbene and tolane, A., 1107.
- and Kapadia, M. R., X-ray investigation of the crystal structure of *p*-aminoazobenzene, A., 1107.
- and Limaye, P. S., photo-reduction of alcoholic solutions of ferric chloride in light, A., 682. Quantum efficiency of photo-reduction of alcoholic solutions of ferric chloride, A., 682.
- and Nabar, M. V., influence of non-electrolytes on coagulation of  $\text{Ce}(\text{OH})_3$  sol dialysed to different extent, A., 567.
- See also Nabar, M. V., and Vaish, B. L.
- Pránsnik, L., evaporation of incandescent wires in a vacuum. III., A., 552.
- Prassler, W. See Tornau, O.
- Prat, J., hydrochlorides and perchlorates of *p*-aminophenylarsinic acid, A., 962.
- Pratesi, P., thiocyan- and thio-pyrroles and pyrrole disulphides, A., 282. Action of alkali hypoidites on pyrrolealdehydes, A., 720. Isatin condensation products of pyrroles (pyrrole-blue), A., 958.
- See also Bonino, G. B., and Fischer, Hans.
- Prather, E. O., jun. See Bliss, A. R., jun.
- Pratolongo, U., [distinction between] fermented and artificial vinegars, B., 281.
- Pratt, A. D. See Holdaway, C. W.
- Pratt, D. D. See Collins, G. E., and Morgan, G. T.
- Pratt, O. B., and Swartout, H. O., tartrate metabolism. I. Grape tartrates and the acid-base balance. II. Mode of action of injected tartrates, A., 528.
- Pratt, R. S. See Webster, W. R.

- Pratt, W. B., Halstead, R. T., and Dispersions Process, Inc., dissolving and dispersing nitrocellulose, (P.), B., 596.
- Prawochenski, R., and Slizynski, J., influence of thallium salts and thyroid preparations on the plumage of ducks, A., 1199.
- Prede, A. F. See Isgarischev, N. A.
- Pree, L. D. See Hunter, R. M.
- Preece, F. H. See Burch, C. R.
- Preis, E. See Peskov, N. P.
- Preisach, F., permeability and hysteresis for magnetisation in the preferential direction for energy, A., 14.
- Preisacker, H. See Linke, B.
- Prell, E. See Pummerer, R.
- Prelog, V., sugar-beet sapogenin. II. Oleonic acid, A., 717.
- Premrl, S. See Samec, M.
- Prentiss, E. L. See Electric Smelting & Aluminum Co.
- Prentiss, S. W., and Potlatch Forests, Inc., digestion of wood [for preparation of moulded materials], (P.), B., 830.
- Preobraschenski, A. M. See Titov, E.
- Preobraschenski, N. A., and Kabatschnik, M. J., alkaloids of *Jaborandi* leaves. IV. Diazomethyl-*r-isopilopyl* ketone and its transformation products, A., 1311.
- Wompe, A. F., and Preobraschenski, V. A., structure and synthesis of *isopilcarpine*. II, A., 1174.
- Wompe, A. F., Preobraschenski, V. A., and Schtschukina, M. N., alkaloids of *Jaborandi* leaves. III. Synthesis of *pilocarpine* and *pilocarpidine*, A., 1311.
- Preobraschenski, V. A. See Preobraschenski, N. A.
- Prescher, J., detection and determination of iron in drinking water, B., 526.
- Prescher, W., photodynamic action of eosin on the root tips of *Vicia faba*, A., 106.
- Prescott, C. H., jun., and Kelly, M. J., cesium-oxygen-silver photo-electric cell, A., 555.
- See also Electrical Research Products, Inc.
- Prescott, F. B., mercury condenser, (P.), B., 196.
- Prescott, J. A., soil zones of Australia, A., 693.
- Press & Drier Co. See Berrigan, J. B.
- Pressman, R. See Gershenfeld, L.
- Preston, A. C., Gress, G. C., and Fiberloid Corp., digestion of nitrocellulose, (P.), B., 423.
- Preston, E., vapour tension of BaO, SrO, and CaO and their mixtures deduced from measurements of the rates of evaporation, A., 1005. Evaporation and diffusion of volatile materials into an inert gas stream, A., 1242.
- and Turner, W. E. S., volatilisation and vapour tension at high temperatures of the sodium silicate-silica glasses, B., 106. Volatilisation from potassium oxide-silica glasses, B., 915.
- Preston, E. F., Stowe, D., and Stowe, L., leather board, (P.), B., 400.
- Preston, F. W., theory of spalling [of firebrick], B., 387. Glass as a structural and stress-resisting material, B., 428. Surface strength of glass and other materials, B., 748.
- Preston, G. H. See Cox, E. G., and Drew, H. D. K.
- Preston, J. M., relations between refractive indices and behaviour of cellulose fibres, B., 298.
- Prétet, E. See Portevin, A.
- Pretsch, F., filter, (P.), B., 370.
- Prettre, M., existence of two different mechanisms for oxidation of combustible vapours by air; luminescence, A., 7. Variation of temperature of spontaneous inflammation of hydrogen-air mixtures with velocity of heating, A., 786. Influence of active nitrogen on oxidation, A., 914. Rhenium, A., 1130. Action of alkali halides on auto-ignition temperature of carbon monoxide-air mixtures, B., 532. Auto-ignition temperatures of hydrogen-air mixtures in presence of alkali halides, B., 532.
- Preussische Bergwerks- & Hütten-Akt.-Ges. See Büchner, K.
- Prévost, C., pigment from tripropinylcarbinol, A., 255. Iodo-silver benzoate complex; its application to the oxidation of ethylenic compounds to  $\alpha$ -glycols, A., 711.
- See also Kirrmann, A.
- Prianischnikov, A. A., and Schachova, Z. F., preparation of pure formic acid, A., 375.
- Pribram, E., pharmacodynamic analysis of blood transfusion and hæmotherapy, A., 1182.
- Price, C. W., and Lewis, W. C. M., electrophoretic behaviour of lecithin and fats, A., 778. Electrophoresis of lecithin in presence of neutral salt; the dual nature of the charge, A., 1244.
- Price, F. E., Wilster, G. H., and Hurd, C. J., preparation of starter for Oregon creameries and cheese factories, B., 650.
- Price, L. S. See Clarke, L. M.
- Price, R. J. See Cunningham, T. R.
- Price, R. M., influence of silica on growth of tubercle bacillus, A., 429.
- Price, W. A., chemical factors of saliva apparently related to alveolar decalcification and pyorrhœa alveolaris, A., 1189. Chemical factors of saliva related to immunity and susceptibility to dental caries, A., 1189.
- Price, W. D., theory of dental caries; chemical procedures for determining immunity and susceptibility, A., 415.
- Price, W. J. See Case, A. E.
- Prichodko, G. V., simultaneous preparation of sulphuric and hydrochloric acids, A., 1252.
- See also Charmandarian, M. O.
- Pridley, G. R. See Butchers, W. H.
- Pribsch, J. A., variation with pressure of residual ionisation, A., 1101.
- Priepke, R. J., and Vosburgh, W. C., Weston standard cells with buffered electrolytes, A., 677.
- Priest, C. F., and Mathison, J., gas-fired regenerative reheating furnaces, (P.), B., 1.
- Priestley, J. E., and Rees, W. J., refractories used in ladles and in ingot casting, B., 916.
- Priestley, J. T., and Mann, F. C., gastric acidity with special reference to the pars pylorica and pyloric mucosa, A., 412.
- Priestley, W. C. See Foster, F. H.
- Prill, E. A., and McElvain, S. M., cyclisation of methyl- $\omega$ -dicarboxyalkylamines through the acetoacetic ester condensation, A., 512.
- Primrose, J., and Foster Wheeler Corp., method for fractionating [hydrocarbons], (P.), B., 616.
- Swanson, H. R., and Foster Wheeler Corp., tower for fractionating [hydrocarbons], (P.), B., 616.
- Prince, A. J. See Imperial Chem. Industries.
- Prince, A. L. See Blair, A. W.
- Prince, E., and Du Pont Rayon Co., artificial filaments, (P.), B., 301.
- See also Du Pont de Nemours & Co., E. I.
- Pringsheim, E. G. [with Jedlitschka and Görlsch], swelling of seeds. III. Respiratory quotient of swelling seeds, A., 1091.
- Pringsheim, H., polysaccharide chemistry, A., 811.
- and Beiser, A., starch. XXVII. Di-amylose and tetra-amylose, A., 149.
- Borchardt, H., and Lewy, R., liquefaction of starch paste, A., 597.
- and Weiss, Harry, cryoscopy of glycogen and inulin in acetamide, A., 149.
- See also Beiser, A., Borchardt, H., and Ohlmeyer, P.
- Pringsheim, P. See Brown, W. G., and Jablonski, A.
- Prins, H. J., synthesis of highly-chlorinated hydrocarbons and catalytic action of aluminium chloride, A., 47.
- Prins, J. A., structure of ultra-soft X-ray lines, A., 548. Diffraction of electrons in amorphous and in crystalline antimony, A., 657. Electron diffraction and structure of metallic films, A., 1097.
- and Takens, A. J., L. M., and N-absorption in the ultra-soft X-ray region, A., 881.
- Prinzmetal, M. See Alles, G. A.
- Prior, (Miss) A. M. See Bradford, B. W.
- Prior, P. H., conditioning of paper for printing, B., 1002.
- Pritchard, J., testing of "resistant glass" ampoules, B., 18.
- Pritchard, T. S., physical properties of metals used in brewing, B., 673.
- Pritchard, W. S. See Grossman, H.
- Pritchett, G. A., explosive, (P.), B., 733.
- Pritzker, J., acetyl-methylcarbinol and diacetyl in pyrolygneous acid, B., 994.
- and Jungkunz, R., deer (roe) tallow, B., 27. New ground-nut coffee substitute, B., 40.
- Privault, M. levels of magnetised iron, A., 441, 881.
- Privett, J. B. J. See Hough, S. H.
- Prizemine, Z. P., biochemical variability of castor seeds due to geographical factors, A., 198.
- Prizer, E. L., Prizer, J. A., Jones, D. C., and Nutt, H. G., supplying soluble fertilising agents to soil, (P.), B., 567.
- Prizer, E. L. & J. A. See under Prizer, E. L.
- Prizer, J. A. See Prizer, E. L.
- Probst, R., spectro-analytical detection of bismuth in tissue and determination of mercury in urine, A., 423.
- Process Engineers, Inc. See De Cew, J. A.
- Procházka, R., study of coagulation by the coagulograph, A., 1117.
- Procopiu, S., depolarisation of light by liquids holding crystalline particles in suspension in relation to the birefringence of these particles, A., 553.
- and Florescu, N., demagnetisation of iron and nickel by high-frequency alternating fields, A., 766.
- Procter, R. C. See Brody, S.
- Procter & Gamble Co. See Lamont, D. R.
- Proctor, C. H., deposition of chromium on articles made from sheet zinc, B., 109.

- Produits Chimiques Pours**, extraction of organic [acetic] acids from their aqueous solutions, (P.), B., 617.
- Proebsting, E. L.**, absorption of potassium by plants as affected by decreased exchangeable potassium in the soil, B., 1072.
- See also **Wallace, T.**
- Proffe, B.** See **Hägglund, E.**
- "Progil,"** synthetic tanning substances and method of tanning skins therewith, (P.), B., 117. Synthetic tanning substances, (P.), B., 400.
- Prohl, V.** See **Briske, P.**
- Prokofiev, W.** See **Filippov, A.**
- Prokopchuk, N.** See **Moldavski, B.**
- Proks, J.**, irradiation of bacteriological media by ultra-violet rays, A., 538.
- Proost, W.** See **Wibaut, J. P.**
- Prophet, E.** See **Wartenberg, H. von.**
- Propper, E. J.**, building materials, (P.), B., 966.
- Prorokov, I. M.**, use of indigo dyes in printing, B., 666.
- Proskouriakoff, A.**, salts of lævulic acid, A., 697.
- Proskuriakov, N.**, and **Temerin, S.**, micro-determination of phosphorus, A., 1023.
- Proskurnina, N.** See **Orekhov, A.**
- Prosser, C. L.** See **Mast, S. O.**
- Prosthetic Products, Inc.** See **Dresch, I. J.**
- Prot, and Goldovsky, (Mlle.) N.**, determination of heterogeneity and resistance to corrosion of metals, B., 791.
- Protassenia, G. J.**, soil acidity in the Minsk area, and liming, B., 241.
- Protzeller, H. W.**, and **Finney, G. W.**, [alloy] steel, (P.), B., 394.
- Prucha, M. J.**, and **Getz, C. A.**, gel formation in sodium metasilicate solutions, B., 226.
- Pruess, L. M.** See **Petersen, W. H.**
- Prüss, M.**, clarification plant, (P.), B., 130.
- Pruett, G. L.** See **Ober, B.**
- Prulière, A. C.**, properties of chromium-molybdenum steel at room and at elevated temperatures: overheating and regeneration, B., 349.
- Prunet, J.** See **Schulz, F.**
- Prunty, F. T. G.**, determination of cystine in biological material, A., 758.
- and **Roscoe, M. H.**, vitamin-B complex and high-protein diets, A., 872.
- Prussin, A. A.**, and **Petro-Sol Corp.**, solidification of liquid hydrocarbons, (P.), B., 853.
- Prutzman, P. W.**, filter press, (P.), B., 848.
- See also **Vogel, W. L.**
- Pryde, J.**, and **Williams, R. T.**, unsaturated derivative of glycuronic acid, A., 259.
- Structure of theophylline *l*-arabinoside, A., 838. Derivatives of hydroxymethoxy succinic and methoxymalonic acids, A., 936. Biochemistry and physiology of glycuronic acid. I. Structure of glycuronic acid of animal origin. II. Methylation of glycurone of animal origin. III. Structure of benzoylglycuronic acid, A., 1035.
- Przylecki, S. J. von**, union of biocolloids. XI. Union between two proteins. XVI. Synthetic nucleoproteins, A., 125, 463. Nucleoproteins. III. Methods, A., 1179.
- Frajberger, S.**, and **Giedroyd, W.**, union of biocolloids. XVIII. Synthetic nucleoproteins, A., 843. Nucleoproteins. IV. Native nucleoproteins, A., 1318.
- Przylecki, S. J. von**, and **Grynberg, M. Z.**, union of biocolloids. XIII. Two- and three-component systems. XV. Proteins and nuclein and their degradation products. XVII. Combination of proteins, polysaccharides, and nucleic acids, A., 226, 463, 731.
- Myskowski, E. M.**, and **Niklewski, B.**, union of biocolloids. XIX. Polyosoproteins (polysaccharoproteins), A., 903.
- and **Targońska, J.**, union of biocolloids. XII. Aggregation of gelatin, A., 125.
- Pschenitsin, N. K.**, and **Krasikov, C. E.**, iridium tetrahydroxide, A., 40. Preparation of iridium tetrachloride, A., 40.
- Pshenichni, A. M.**, and **Shumkov, B. P.**, clarification of syrups and remelt, B., 440. Standard alkalinity and calcium salts in beet-sugar production, B., 1075.
- and **Zisman, G. S.**, storing sugar beets for a long period, B., 324.
- Pshonik, M. S.** See **Berg, P. P.**
- Ptizin, B. W.** See **Grünberg, A. A.**
- Publicker, Inc.** See **Haner, C.**
- Pucher, G. W.**, and **Vickery, H. B.**, catalabolism of non-volatile organic acids of tobacco leaves during curing, A., 988.
- Pucherna, J.**, determination of ash in raw sugars, B., 362.
- Puchulu, F.**, ketogenic-antiketogenic relation in the treatment of infantile diabetes, A., 415.
- Puening, F.**, metal retorts versus brick ovens for low-temperature coking, B., 373. Low-temperature distillation apparatus, (P.), B., 498. Liquid fuel for metallurgical furnaces, (P.), B., 499. Coking apparatus, (P.), B., 613.
- Pürkhauser, R.**, systematic examination of soils and soil mapping in Bavaria, A., 1032.
- Püschel, F.** See **Lottermoser, A.**
- Pütter, K.** See **Engelhard, H.**
- Puffett, W.** See **Stern, H. J.**
- Pngatschev, N.** See **Klimov, B. K.**
- Puget, L. M.** See **Avecilla, C. L. S.**
- Pugh, C. E. M.**, supposed oxidase activity of cobaltamines with particular reference to tyrosinase, A., 750. Tyrosinase from the skin of black rabbits, A., 750.
- Pugh, E. M.**, and **Lippert, T. W.**, Hall e.m.f. and intensity of magnetisation, A., 216.
- Pugh, W.**, conditions for determining antimony by the permanganate method: potentiometric titration, A., 246.
- Puhr, L. F.**, and **Hume, A. N.**, variations in amounts of carbohydrates in maize leaves, A., 198.
- Puilaev, B. F.**, preparation of sodium chloride from sylvinite waste, B., 913.
- Puister, G. J.** See **De Vries, A.**
- Pulewka, P.**, eye of the white mouse as pharmacological test object. I. Determination of very small quantities of atropine and other mydriatics, A., 90. Application quotient and pharmacological differentiation of similarly acting drugs, A., 421.
- Pulkki, L.** See **Euler, H. von**, and **Virtanen, A. I.**
- Pullar, H. B.**, asphalt, (P.), B., 775.
- Pullen, A. N. D.** See **Brit. Aluminium Co.**
- Pallin, V. E.**, radium in engineering practice, B., 367.
- Pulver, V. L.** See **Fabrikant, V. A.**
- Pummerer, R.**, [4:4'-derivatives of diphenyldidiphenyl and didiphenyl], A., 704.
- Dally, M.**, and **Reissinger, S.** [with **Huppmann, G.**], condensation of *p*-benzoquinone with cresols and veratrole, A., 717.
- and **Keblen, H.**, caoutchouc. XV. Polymerisation of caoutchouc, isoprene, and styrene by light in presence of sensitising agents, A., 1054.
- and **Rebmann, L.**, carotenoids. IV. Degradation of carotene and  $\beta$ -ionone with ozone, A., 703.
- and **Reindel, W.**, oxides of isoprene and butadiene, A., 373.
- Rieche, A.**, **Krüdener, G. von**, **Pfeiffer, Hans**, **Prell, E.**, **Tuchmann, W.**, and **Wilsing, H.**, dinaphthylene dioxide. II., A., 833.
- Pungs, W.** See **Günther, F.**
- Punnett, E. B.**, and **Nat. Aniline & Chem. Co.**, maleic anhydride, (P.), B., 904.
- Punnett, E. L.**, and **Nat. Aniline & Chem. Co.**, ball mill, (P.), B., 656.
- Puntambekar, S. V.**, and **Krishna, S.**, fat from the seeds of *Vateria indica*, Linn., A., 989. Oil from the seeds of *Tectona grandis* (teak), A., 1217. Fat and oil from the seeds of *Actinodaphne Hookeri*, Meissn.; indigenous source of lauric acid, A., 1217. Storage of *Strychnos nux vomica* seeds, B., 284.
- Pupp, W.**, effect of the anode on stability of the homogeneous column in argon, A., 1221.
- Pupulkin, A. F.**, germination of *Apocynum* seeds in variously salinised soils, A., 1341.
- Purcell, H. H.** See **Harte, C. R., jun.**
- Purdon, A.**, and **Saggirs, S.**, calorific value of pure coal substance, B., 290.
- Purdum, R. B.**, and **Pease, R. N.**, equilibrium in the system cyclohexane-benzene-hydrogen, A., 1012.
- and **Rutherford, H. A., jun.**, solubilities of sparingly soluble salts using large volumes of solvents. I. Solubility of lead sulphate, A., 1008.
- Pure Calcium Products Co.** See **Church, J. W.**
- Pure Oil Co.** See **Chittiek, M. B.**, **Harnsberger, A. E.**, **Hyman, J.**, **Osterstrom, R. C.**, **Smith, C. L.**, **Wagner, C. R.**, and **Watson, C. B.**
- Purinton, B. S.**, casting of ceramic articles, (P.), B., 706.
- Purkayastha, R. M.** See **Ghosh, J. C.**
- Purkert, R.** See **Graf, R.**
- Purr, A.**, influence of vitamin-C on intracellular enzyme action, A., 1340.
- See also **Waldschmidt-Leitz, E.**
- Purvis, E. R.** See **Waksman, S. A.**
- Pushin, N. A.**, and **Matavulj, P. G.**, refractive index of liquid mixtures having benzene as a component, A., 119. Refractive index of liquid mixtures with pyridine as a component, A., 455.
- Stepanović, S.**, and **Stajić, V.**, alloys of gallium with zinc, cadmium, mercury, tin, lead, bismuth, and aluminium, A., 118.
- and **Tutundžić, P. S.**, electrical conductivity of mixtures of acetic acid with amines, A., 676.
- and **Živadinović, R.**, amphoteric nature of organic oxygen compounds, A., 782.



- Pusrin, G. B., electrical apparatus for determining moisture in grain [etc.], B., 593.
- Puterbaugh, J. W., mixing machine [for cream, etc.], (P.), B., 130.
- Putnam, S. W. See Dow Chem. Co.
- Putnoky, L. von, and Neráth, W., sorption of alcohol and ether vapour by silica gel, A., 121.
- Putte, M. van de, flotation of mercury ores, B., 510.
- Putzer-Reybege, A. von. See Felix, K.
- Putzeys, P., and Brosteaux, J., influence of electrolytes on solubility of the nitro-anilines, A., 773.
- Puxeddu, E., Sanna, G., and Moss, E., chemical analysis and physico-chemical investigations of the thermal springs of Sardaia, A., 802.
- Puyal, J., and Torres, I., chemical composition of Spanish foodstuffs. I. Foodstuffs of vegetable origin. II. Fish of the north coast of Spain. III. Mountain meats. IV. Milk and cheese, B., 810.
- See also Collazo, J. A.
- Pybus, J. H., boiler feed-water treatment with special reference to corrosion, B., 288.
- Pycock, E. R. See Dawson, H. M.
- Pyhäälä, E., formation of complex naphthenic acids in petroleum; origin of petroleum, B., 452. Polymerisation of light hydrocarbons from petroleum tar to viscous oils and naphthalene, B., 819.
- and O. Y. Methods, Ltd., refining and discoloring [decolorising] of raw sulphate soft soap, (P.), B., 718.
- Pyl, G., significance of the colloidal carrier for stability of the virus of foot-and-mouth disease, A., 984.
- Pyman, F. L. See Boots Pure Drug Co., Coulthard, C. E., and Easson, A. P. T.
- Pyne, G. T., formaldehyde titration of milk protein, and its application to determination of caseinogen, B., 730.
- and Lyons, J., body of cream, B., 330.
- and Ryan, J. J., colloidal calcium phosphate of milk, A., 1187.
- See also Lyons, J.
- Pyrene Co., Ltd., application of protective coatings to metals [steel], (P.), B., 924.
- Pyridium Corporation. See Ostromisslenski, I., Philipp, K., and Tisza, E. T.
- Pyriki, C., absorption of nicotine from cigarette smoke, A., 91. Determination of nicotine in tobacco, B., 525. Nicotine in cigarette tobacco smoke. III., B., 764.
- Pyzel, D., motor fuels, B., 375.
- and Shell Development Co., [synthesis] of ammonia, (P.), B., 59.
- and Universal Oil Products Co., cracking of hydrocarbon oils, (P.), B., 616.
- See also Bataafsche Petroleum Maats.
- Pyzel, F. M. See Bataafsche Petroleum Maats.
- Q.**
- Quadrát, O., Benda, A., and Koritta, J., pearlite in black-heart malleable cast iron, B., 1058.
- and Pilz, M., nitrogen in the Thomas process [of making steel], B., 1058.
- and Pospíšil, R., dilatometry of an aluminium alloy, B., 1062. New differential dilatometer, B., 1062.
- Quagliarillo, G., presence in bile of an enzyme which dehydrogenates stearic acid, A., 413. Presence in cells of adipose tissues of a dehydrogenase acting on higher fatty acids, A., 747.
- Quaker Oats Co. See Peters, F. N., jun.
- Quarek, R., bating problem [and evaluation of bating materials for skins], B., 160.
- Quarrell, A. G. See Finch, G. J.
- Quartaroli, A., strongly magnetic ferric hydroxide, A., 797. Oxidation of ferrous hydroxide, A., 1259.
- Quastel, J. H., biochemistry and mental disorder, A., 303. Glutathione, iodoacetic acid, and glucose metabolism, A., 420. Reducing bodies and fumarase in tumours, A., 851. Action of polyhydric phenols on urease; influence of thiol compounds, A., 1081.
- and Wheatley, A. H. M., relation of thiol compounds to glucose fermentation, A., 316. Amines and oxidations of brain, A., 1329.
- See also Jowett, M.
- Quadrat-i-Khuda, M., strainless monocyclic rings, A., 952.
- Queck, F., asphaltic emulsion, (P.), B., 420.
- Queen, F. B., Hawkins, W. B., and Whipple, G. H., splenectomy in bile-fistula dogs; bile-pigment over-production, anaemia, and intoxication, A., 848.
- Quehl, K. See Pfeiffer, P.
- Quelch, G. C., and Union Carbide & Carbon Res. Labs., gaseous fuel mixture, (P.), B., 538.
- Quelet, R., synthesis of chloromethyl derivatives of *p*-bromoanisole and the nitroanisoles, A., 707. Derivatives of *p*-xylylene glycol, A., 710.
- Quell, M. H. See Walker, A. C.
- Quendiac, M., localisation of tannins in the lignified tissue of chestnut wood, A., 1344.
- Queneau, A. L. J., separation of component constituents of complex metaliferous dust, (P.), B., 553.
- Querfeld, D. See Bridgeman, O. C.
- Quetel, R., variations in nitrogen content of lilac during forcing, A., 758. Mechanism of forcing of plants by ether vapour, B., 727.
- Quick, A. J., reagent for determination of zinc, A., 244. Continuous extractor, A., 248. Glycuronic acid in scurvy, A., 629. Chemical structure and physiological response. IV. Conjugation of salicylic acid with glycine and its action on uric acid excretion, A., 976.
- and Cooper, M. A.,  $\beta$ -oxidation. V. Effect of insulin and acetoacetic acid on the production of glycuronic acid, A., 88. Liver injury and conjugation of benzoic acid in the dog, A., 306.
- Quietawerke A. Kasper. See under Kasper, A.
- Quiggle, D. See Bromiley, E. C.
- Quigley, J. P. See Reid, E.
- Quilico, A., azo-derivatives of trinitromethane, A., 59. Nitroscarbonylhydrazines, A., 839. Aspergillin, the spore pigment of *Aspergillus niger*. III., A., 1054.
- and Di Capua, A., aspergillin, the spore pigment of *Aspergillus niger*. I. and II., A., 536, 751.
- Quill, L. L. See Hopkins, B. S.
- Quillet, M. See Colin, H.
- Quimby, E. H. See Woodard, H. Q.
- Quinlan, (Miss) F. M. See McLennan, J. C.
- Quinn, E. J. See Janes, E. R.
- Quintin, (Mlle.) M., application of Gronwall, La Mer, and Sandved's extension of Debye's theorem to solutions of cupric sulphate, A., 468. Application of the Debye theory to solutions of copper sulphate, A., 781.
- Quinton, E. E. See Dunlop Rubber Co.
- Quiroz, F. A., separating apparatus, (P.), B., 449.
- R.**
- Raab, H. A., and Renz, J., toxic substances of *Amanita* species, A., 746.
- Raalte, A. van [with Koster, J.], [Duboscq colorimeter], A., 1026.
- Rabassa, J., machines for dyeing and washing articles of textile materials, (P.), B., 59.
- Rabaté, H., asphalts and allied products, B., 532. Paints for aluminium and its alloys, B., 595.
- Rabaté, J., robinoside in the flowers of *Vinca minor*, L. (*alba*), A., 438. *Persica vulgaris*. I. Presence of amygdonitrilo-glucoside, A., 652.
- See also Charaux, C., and Ramart-Lucas, (Mme.) P.
- Rabbeno, A., and Vallesi, E., effect of high altitudes on total iodine content of the thyroid, A., 424.
- Rabecwicz-Zubkowski, I., determination of facility of fractional distillation of liquid binary mixtures, A., 19. Binary azeotropic mixtures, A., 345. Determination of composition of azeotropic mixtures, using a universal fractional distillation apparatus, A., 561. Variations in composition of binary azeotropic mixtures with change in temperature, A., 896.
- Rabe, P., and Schultze, A., *Cinchona* alkaloids. XXVIII. Synthesis of mirror-image isomerides of hydroquinine and hydroquinidine, A., 288.
- Rabetrano, E., ammonia, (P.), B., 188.
- Rabi, I. I., nuclear spin of caesium by the method of molecular beams, A., 1225.
- Rabinerson, A., adsorption and amount of adsorbent. I., A., 346. Quantitative relationships in the phenomena of exchange adsorption, A., 899.
- See also Antipov-Karataiev, I. N., and Ivanov, E.
- Rabinovitch, A. J., and Bagdassarian, C. S., influence of  $p_H$  on the light-sensitivity of colloid-free silver bromide, A., 915. Schwarzschild effect with colloid-free silver bromide, A., 915.
- Rabinovitch, B., viscosity and elasticity of sols, A., 1115.
- See also Hess, K.
- Rabinovitch, Efraim, making and treating dough, (P.), B., 42, 410.
- Rabinovitch, Eugen, photobromination of benzene, A., 36. Paramagnetism and chemical linking, A., 890. Free radicals and photochemistry of solutions, A., 1255.
- and Wood, W. C., electrical conduction in zeolites, A., 1000. Ionic exchange and sorption of gases by chabazite, A., 1241.
- See also Chilton, D.
- Rabinovitch, I. M., copper content of urine of normal individuals, A., 627.

- Rabinovitch, J. See Wolf, H.
- Rabinovitch, M. See Orekhov, A.
- Rabinovitch, M. A., and Pasetschnik, S. J., distribution of current in electrolytes, A., 1247.
- Rabinovitch, P. N., conditions for formation of phenylhydrazine hydrochloride, B., 139.
- Rabl, A. See Tausz, J.
- Racciu, G. See Garelli, F., and Giua, M.
- Race, J., phosphate test in cases of arthritis and osteitis, A., 85.
- Řach, P. See Šatava, J.
- Rachinski, F. Y. See Buschmakín, I. N.
- Raconite Chemical Co. See Stevens, J. L.
- Racz, L., determination of enzymes in duodenal juice and faeces, A., 84.
- Rada, O. See Glazunov, A.
- Radasch, A. H., and Barrett Co., distillation of tar, (P.), B., 694. Coking [of] pitch, (P.), B., 851.
- Radcliffe, J., composition for bituminous roads, (P.), B., 308, 388.
- Radcliffe, T. D. See Mino, E.
- Radda, M. See Griengl, F.
- Radeloff, H. See Bredemann, G.
- Rademacher, B., and Schmidt, O., control of root nematodes (*Heterodera Schachtii*, Schm.) by means of stimulants, B., 1074.
- Radet. See Lebrun.
- Radio-Akt.-Ges. D. S., Loewe, producing metal vapour in vacuum or gas-filled discharging tubes, (P.), B., 113.
- and Waldschmidt, E., production of highly emissive thermionic cathodes according to the metallic vapour process, (P.), B., 835.
- Radiochemisches Forschungs-Institut, G.m.b.H. See Plauson, H.
- Radio Corporation of America. See Morehouse, F. G.
- Radio Patents Corporation. See Falkenthal, E., and Pfiffner, E.
- Radjy, A. H. K., and Wood, C. E., oil-field water analysis. III. Determination of sodium by dihydroxytartaric acid, B., 1088.
- Radley, E. G., improved crucible support, A., 801.
- Radley, J. A., steam-distillation apparatus, A., 480. Fluorescence of milk and dairy products, B., 1080.
- Radu, I. F., basis of reaction changes in soil, B., 881. Absorptive capacity of soils, B., 882.
- Radulesco, C. See Vellinger, E.
- Radulescu, D., and Muresanu, P. L., ethylene chlorohydrin, A., 1271.
- Radushkevich, A. T. See Tzofin, E. A.
- Rae, J. See Griffiths, H. N.
- Raeder, M. G., reciprocal reactions and mixed halides among elements of the inner groups of the periodic system, A., 228.
- Räihä, C. E., potassium content of aqueous humour and plasma, A., 524. Effect of insulin on calcium content of blood and aqueous humour of the eye, A., 868.
- Räth, C. See Binz, A.
- Raether, H., application of electron diffraction to detection of impurities in canal rays, A., 761. Electron interference at mechanically worked surfaces, A., 1222.
- Raetz, W. See Oelkers, H. A.
- Rafalovitch, I. M., classification of industrial furnaces, B., 815.
- Rafalowski, S., permanent changes in the fluorescence of haematoporphyrin, A., 209.
- Raffaelli, D., synthesis of  $\beta$ -hydroxy- $\beta$ -phenylethylamine, A., 819.
- Raffnerie Trelmontoise Soc. Anon., centrifuging process for separating the mother-liquor from crystals or crystalline syrup, (P.), B., 441.
- Raffold Process Corporation. See Rafton, H. R.
- Raffy, (Mlle.) A., comparison of metabolic respiration of eels in various stages of development, A., 203.
- Rafton, H. R., opacity and whiteness test for paper-coating pigments, B., 743.
- and Raffold Process Corp., paper, (P.), B., 15. Alkaline filler [for paper], (P.), B., 665. Paper [containing alkaline filler], (P.), B., 826, 1005. [Resin-sized] paper [filled with alkaline filler], (P.), B., 1005.
- Ragatt, H. G., and Whitworth, H. F., intrusive igneous rocks of the Muswellbrook-Singleton district. II. Savoy Sill, A., 691.
- Ragatz, E. G., McCartney, E. R., and Haylett, R. E., pressure-temperature and low-pressure total heat relationships of petroleum fractions, B., 948.
- and Union Oil Co. of California, high-vacuum steam-distillation, (P.), B., 4. Distillation of oil, (P.), B., 295.
- Ragatz, R. A. See Williams, G. C.
- Ragg, M., protective action of lead pigments against rust, B., 927.
- See also Rahtjen, F.
- Raghavendra, B. V., first spark spectrum of gold; Au II, A., 1219.
- Ragni, G., additive compounds of mercuric cyanide with hydriodides of organic bases, A., 940.
- Ragowski, F. See Freundlich, H.
- Ragsdale, A. C. See Brody, S.
- Ragusa Asphalte Paving Co., Ltd. See Murray, H. D.
- Raha, P. K. See Bose, D. M.
- Rahlfs, O., and Fischer, Werner, thermal properties of halides. VI. Vapour pressures and vapour densities of beryllium and zirconium halides, A., 560.
- Rahn, H., nitrogen metabolism of vegetative storage organs in plants, A., 327.
- Rahn, O., and Barnes, M. N., comparison of different criteria of death in yeast, A., 535.
- Rahtjen, F., and Ragg, M., anticorrosive paints or pigments, (P.), B., 199.
- Raiford, L. C., and Daddow, W. T., reaction of carbonyl and thiocarbonyl compounds with phenylhydrazine, A., 825.
- and Entrikin, J. B., rearrangement of phenylhydrazones of unsymmetrically substituted distyryl ketones, A., 514.
- and Miller, G. R., behaviour of mixed halogenated phenols in the Zincke method of nitration, A., 707.
- and Oberst, F. W., behaviour of piperonal derivatives towards bromination and nitration, A., 1288.
- and Potter, D. J., preparation of substituted vanillic acids, A., 608.
- Webster, V. S., and Potter, D. J., behaviour of vanillin substitution products: (a) Perkin reaction; (b) preparation of substituted vanillic acids, A., 1050.
- Raihorodska, R. L. See Binova, E. S.
- Raileanu, C. See Popper, M.
- Railway Service & Supply Corporation. See Grisbaum, L. D.
- Raineau, A. See Audibert, E.
- Räiney, C. A., condensing apparatus, (P.), B., 848.
- Raisch, E., and Weyh, W., thermal conductivity of [heat] insulators at low temperatures, B., 47.
- Raison, J. See Kuntziger, J.
- Raistrick, H., Robinson, R., and Todd, A. R., synthesis of helminthosporin, A., 717. Biochemistry of micro-organisms. XXXII. Cynodontin (1:4:5:8-tetrahydroxy-2-methylanthraquinone), a metabolic product of *Helminthosporium cynodontis*, Marignoni, and *Helminthosporium euchlanæ*, Zimmermann, A., 1082.
- and Simonart, P., biochemistry of micro-organisms. XXIX. 2:5-Dihydroxybenzoic acid (gentisic acid), a new product of the metabolism of glucose by *Penicillium griseo-fulvum*, Dierckx, A., 949.
- and Smith, G., vacuum evaporating plant for laboratory use, A., 587.
- See also Birkinshaw, J. H., Charles, J. H. V., Clutterbuck, P. W., and Oxford, A. E.
- Rajchinshtein, C., and Korobov, N., determination of molybdenum and lead by Fajans' method. I and II, A., 246, 1263.
- Rajewsky, B., physical proof of Gurwitsch radiation, A., 554.
- Rajkumar, S. G. See Mukherjee, J.
- Rajmann, E. See Feigl, F.
- Rajzmann, A., comparative biological value of proteins in different animal species, A., 1195.
- Rakhlin, E. A., and Ivanov, N. F., optimum conditions for utilisation of substantive dyes, B., 666.
- Rakićen, M. L., and Hunt, G. A., adsorption of bacteriophage with kaolin and infusorial earth, A., 429.
- Rakićen, N. See Himwich, H. E.
- Rakovski, A. V., and Nikitina, E. A., heteropoly-compounds. III. Crystal hydrate regions of phosphotungstates and phosphomolybdates, A., 212.
- Rakovski, M. A., and Babaeva, A. V., heteropoly-compounds. IV. Boro- and meta-tungstates, A., 796.
- Rakovski, V. E., and Joffe, P. M., composition of peat gas-producer and low-temperature carbonisation tars, B., 452.
- and Vuisotskaja, V. A., changes in fibre in a peat bog, A., 758.
- Rakuzin, M. A., exceptional tendency of the sodium ion to form hydrates, and its significance in the theory of combination of water of crystallisation, A., 348. Simple devices for determination of sp. gr. of saline-like and solid fats, oils, and waxes, B., 435.
- Raleigh, W. P., colloidal copper spray, B., 565. Fungicidal efficiency of mercuric chloride and potassium iodide, B., 566.
- Dickey, C. B., and Pittsburgh Plate Glass Co., disinfecting seeds, (P.), B., 728.
- and Pittsburgh Plate Glass Co., disinfecting corn and similar seed, (P.), B., 567.
- Ralli, E. P., and Waterhouse, A., blood-cholesterol in dogs on a vitamin-A-deficient diet, A., 1088.
- Ralls, J. O., factors giving rise to abnormal iodine value of cholesterol, A., 709.
- Ralston, O. C. See Fowler, M. G.
- Ram, A. See Dhar, N. R.

- Ramage, A. S., Wiley, M., and Smith, O. L., conversion of gaseous paraffin or olefine hydrocarbon into liquid aromatic hydrocarbons, (P.), B., 996.
- Ramage, G. R., and Robinson, R., synthesis of chrysene and derivatives, A., 387. Synthesis of substances related to the sterols. I. Derivatives of chrysene, A., 828.
- See also Clemo, G. R.
- Ramage, H., Sheldon, J. H., and Sheldon, W., spectrographic investigation of metallic content of the liver in childhood, A., 967.
- See also Sheldon, J. H., and Whitehouse, A. G. R.
- Ramahlenina-Ranaivo. See Canals, E.
- Ramaiyya, P. V., cystine metabolism in sheep, A., 309.
- Ramakors, (Mlle.) L. See Pinkus, A.
- Ramanathan, K. R., spectrum of the night sky as observed in India, A., 440.
- Ramart-Lueas, (Mme.) P., and Cornubert, R., ultra-violet absorption of alkyl- and allyl-cyclohexanones, A., 1227.
- and Grumetz, (Mme.) M., colour and structure of oximes and semicarbazones, A., 159, 1278.
- and Rabaté, J., [determining of] structure of heterosides by their absorption spectra, A., 699.
- and Trivédi, R., colour and properties in the cinnamic series, A., 63. Colour and chemical reactivity in the cinnamic series, A., 607.
- and Wohl, (Mlle.) P., colour and structure of amides, A., 387. Comparative stability of isomerides relative to their absorption spectra; isomerisation of arylamines, A., 816.
- Ramaswami, S. See Krishna, S.
- Rambaud, R., *trans*- $\gamma$ -hydroxycrotonic acid, A., 489.  $\alpha$ -Chlorovinylacetic derivatives, A., 1275. Action of phosphorus tribromide on ethylenic  $\alpha$ -hydroxynitriles, A., 1281.
- Ramberg, E., upper atomic limit of satellites of the X-ray line  $L_{\alpha}$ , A., 201.
- Ramberg, L., bar rider for accurate weighing, A., 690. Portable cooling machine for laboratory use, A., 800.
- Rambush, N. E. See Power-Gas Corp.
- Ramele, L. See Wathelet, E.
- Ramiah, P. V., organic manures and animal nutrition, B., 38.
- Ramin, von, copper salt-lick [for cattle], B., 519.
- Rammler, E. See Rosin, P.
- Ramon, G., and Nélis, P., importance of antigenic value of anatoxin in antidiphtheritic vaccination; precipitin reaction and immunisation, A., 318.
- Ramonteanu, E. See Macovski, E.
- Rampoldt, O. See Meyer, J.
- Ramsauer, B., smoke injury and soil examination, B., 1025.
- Ramsauer, C., and Kollath, R., proton reflexion and stationary radiation from impact of solids, A., 441. Scattering of slow protons by gas molecules, A., 442. Effect of neutral gas molecules on slow protons (total action, scattering, charging), A., 882.
- Ramsay, J. W., and Davis, H. S., gum stability of gasolines. II. Observed and true oxygen-bomb induction periods, B., 994.
- See also Kalichevsky, V. A.
- Ramsburg, C. J., and Koppers Co., recovery of light oils, motor fuel, etc., [from fuel gas], (P.), B., 613.
- Ramser, H. See Stock, A.
- Ramsey, J. B., U-type mercury thermometer, A., 689.
- See also Bray, W. C.
- Ramsey, R. J., Tracy, P. H., and Ruehe, H. A., use of maize sugar in manufacture of sweetened condensed skim milk, B., 443.
- Ramsey, T. L., and Eilmann, H. J., preparation of colloidal gold solution, A., 1020.
- Ramsperger, H. C., and Waddington, G., kinetics of thermal decomposition of trichloromethyl chloroformate, A., 232.
- Rancaño, A. See Guzmán, J.
- Randall, C. J., and Goodyear's India Rubber Glove Mfg. Co., vulcanisation of rubber [articles], (P.), B., 558.
- Randall, H. M. See Wright, N.
- Randall, J. T. See Gen. Electric Co.
- Randall, R. A., flash points, B., 376.
- Randall, S. S. See Harington, C. R.
- Randall, W. F. See Smith, W. S.
- Randoin, L., international standard and unit of vitamin-A, A., 870.
- and Netter, R., chemical nature of vitamin-C or the C-vitamins, A., 541. Threshold of activity of carotene, A., 1088. Activity of carotene from the suprarenal glands of various animals, A., 1212.
- and Simonnet, H., artificial diet for experiments of long duration on the relation between nutrition and growth, maintenance, and, particularly, reproduction, A., 181.
- Randolph, E. E., Grove, C. S., and Tucker, R. C., destructive distillation of cottonseed hulls, B., 658.
- and Morrow, J. M., causes and prevention of corrosion in gas mains, B., 658.
- Randolph, F. K., and Gen. Salt Co., auto-oxidative recovery of iodine from brines, (P.), B., 18.
- Rands, R. D., [sugar] filter-press cake on Louisiana plantations, B., 804.
- Ranedo, J., acceleration and retardation by various elements of the oxidation of materials by sulphuric acid, A., 912.
- Ranganadham, S. P., molecular rotation in liquids as revealed by the Raman effect, A., 448.
- Ranganathan, S., mineral metabolism in rabbits fed on a cabbage diet, A., 743. Stone. XIII. X-Ray diffraction of calculi, A., 1321.
- and Aldis, R. W., heat-curing of shellac. I. Life under heat, B., 719.
- Rangaswami, M., influence of orpiment in shellac on protective properties of varnish, B., 115. Wax-free shellac, B., 719.
- and Aldis, R. W., effects of baking shellac varnish films, B., 316.
- Rangaswami, S., and Iyengar, A. V. V., spike disease of sandal, B., 245.
- Ranghiasi, G. M. See Occhialini, A.
- Rangier, M., form in which uric acid is excreted, A., 738.
- Rank, B. See Criegee, R.
- Rank, D. H., multiple-prism glass spectrograph, A., 585. Isotope of hydrogen in the atomic spectrum, A., 1219.
- Ranke-Abonyi, O. M. von. See Nord, F. F.
- Rankin, L. P., and Hercules Powder Co., drying oil, (P.), B., 718. Preparation of xanthates of terpene alcohols, (P.), B., 999.
- Rankin, R., composition of the mother-liquor of the dimethyl acetal of  $\alpha$ -hydroxy- $\beta$ -methoxy- $\beta$ -phenylpropiophenone, A., 828.
- Rankin, R. B. See Brewer, P. H.
- Rankin, R. S., mechanical conditioning of treated waters, B., 286.
- and Dorr Co., sewage disposal, (P.), B., 766.
- Ransley, C. E. See M.-O. Valve Co.
- Ranson, A., comparison of different stimulants of blood-cell regeneration, A., 81.
- Ranson, G., algæ which excrete soluble organic pigmented matter in the sea, A., 876.
- Rao, A., and Guha, P. C., Walden inversion. I. Dependence of reaction direction on number of free carboxyl groups, A., 1274.
- Rao, A. J. See Joshi, Shridhar S.
- Rao, A. N., permeability and variation of permeability; influence of surface-active and hydrotropic substances on permeability of acids and of sucrose, A., 978.
- See also Weber, L. J.
- Rao, A. R. See Srikantan, B. S.
- Rao, A. S., first spark spectrum of arsenic, A., 199, 880. Nuclear spin of arsenic, A., 880.
- and Rao, K. R., spectra of bromine: Br v, vii, and iv, A., 331.
- Rao, B. *Sanjiva*, essential oil from leaves of *Litsa zeylanica*, Linn., B., 250. Essential oil from flower-heads and stalks of *Andropogon kuntzeanus*, Hack, var. *jovialata*, Hack, B., 250.
- See also Shintre, V. P., and Singh, J.
- Rao, Basur S. See Rao, M. R. A.
- Rao, G. G., origin of nitric nitrogen in the atmosphere, A., 250.
- See also Dhar, N. R.
- Rao, G. R., serum-proteins in leprosy; *Hydnocarpus* treatment, A., 1322.
- Rao, I. R., constitution of water in different states, A., 1102.
- Rao, J. J., and Subrahmanyam, V., organic manure from sewage, town refuse, and waste vegetation, B., 322.
- Rao, K. R., and Badami, J. S., resonance spectrum of hydrogen, A., 107.
- See also Badami, J. S., and Rao, A. S.
- Rao, M. R. A., and Rao, Basur S., effect of solvent on the reaction between iodine and hydrogen sulphide, A., 910.
- Rao, S. R., efficiency of secondary electron emission, A., 202. Diamagnetism of thin films of bismuth, A., 1002.
- Rao, S. V. See Jois, H. S.
- Rao, V. V. See Nayar, P. G. N.
- Rao, Y. V. S., spike-disease of sandal (*Santalum album*, L.). XIII. Hexone bases. XIV. Mosaic [disease] associated with spiked areas, A., 1344. Spike disease of sandal, B., 245.
- Sastri, B. N., and Narayana, N., proteins of Indian foodstuffs. V. Alcohol-soluble protein of fenugreek (*Trigonella foenum-graecum*), A., 1343.
- and Sreenivasaya, M., proteins of Indian foodstuffs. IV. Fenugreek (*Trigonella foenum-graecum*), A., 545.
- Rapatz, F., machinability of steel and cast iron, B., 22. Steels for tools used in pressing artificial resins, B., 470.
- Rapeanu, S. Z. See Cassa Autonoma a Monopolurilor Regatului Romaniei.
- Raper, A. R. See Atkinson, R. H.

- Raper, *H. S.*, oxidation of tyrosine, tyramine, and phenylalanine with hydrogen peroxide, A., 272.  
See also Heard, *R. D. H.*
- Raper, *K. B.* See Thom, *C.*
- Raper, *R.* See Clemo, *G. R.*
- Raphael, *T. D.* See Thomas, *P. H.*
- Rappaport, *F.*, determination of residual nitrogen and its fractions. I. Micro-determination of residual nitrogen in blood, A., 174. Micro-determination of residual nitrogen and of urea in blood, A., 1316.  
and Engelberg, *H.*, micro-determination of blood-fat, A., 845. Micro-determination of indican in blood, A., 1316.  
and Glaser, *A.*, determination of residual nitrogen and its fractions. II. Micro-determination of urea in blood and serum, A., 174.  
and Gottdenker, *F.*, apparatus for determination of oxygen uptake of small animals, A., 622.  
and Klapholz, *R.*, volumetric determination of cholesterol. I. In pure solution, A., 520.  
See also Kautheil, *L.*, and Schwarz, *H.*
- Rapport, *D.* See Canzanelli, *A.*, and King, *F. B.*
- Rapps, *N. F.*, bactericidal efficiency of chlorocresol and chloroxenol, B., 605.
- Rapson, *W. S.*, and Short, *W. F.*, 1-methyl- and 1,7-dimethyl-4-isopropynaphthalene, A., 386.
- Raquet, *D.*, and Pinte, *P.*, volumetric determination of iodine in presence of alkali hydrogen carbonates, borates, and acetates, A., 797. Rapid iodometric determination of phosphites and hypophosphites isolated or mixed, A., 921. Detection and differentiation of phosphites and hypophosphites, A., 1023.
- Rarick, *M. J.*, Brewster, *R. Q.*, and Dains, *F. B.*, formation of aromatic ethers from *p*-fluoronitrobenzene, A., 499.
- Ras, *G.* See Wolff, *L. K.*
- Răscanu, *R.*, influence of substitution on co-ordination number, A., 580. Influence of the nitroso-group on formation of [complex salts of] amines, A., 705.
- Rasch, *R. H.*, Shaw, *M. B.*, and Bicking, *G. W.*, factors influencing strength and stability of experimental papers made from two different sulphite pulps, B., 911.  
See also Richter, *G. A.*, and Schur, *M. O.*
- Rasche, *R. A.*, preparing apples for freezing, (P.), B., 651.
- Raschig Ges.m.b.H., *F.*, phenol from chlorobenzene, (P.), B., 297.
- Rasetti, *F.*, Raman effect in crystals, A., 113.
- Rasmussen, *E.*, arc spectrum of radium emanation, A., 440. Spark spectrum of barium, A., 760. Series in the spark spectrum of radium; Ra II, A., 1220.
- Rasmussen, *O. V.* See Jensen, *K. A.*
- Raspopina, *A. K.* See Schtscherbakov, *I. G.*
- Rassmann, *W.* See Hüchel, *W.*
- Rassow, *B.*, and Wolf, *L.*, new form of electrolytically deposited chromium, B., 352.
- Rassudova, *N.* See Sapgir, *I.*
- Rassweiler, *G. M.* See Withrow, *L.*
- Rastelli, *E.*, actual reaction of the skin, in normal, morbid, and different experimental conditions, A., 978.
- Rasul, *C. K.* See Singh, *S. L.*
- Rat, *R.*, decomposition of arsenites by heat, A., 918.
- Ratcliffe, *G. H. C.*, and London Brick Co. & Forders, Ltd., building bricks, blocks, etc., (P.), B., 64.
- Ratelade, *J.* See Boutaric, *A.*
- Raterink, *H. R.* See Hurd, *C. D.*
- Rath, *G.* See Bomskov, *C.*
- Rathery, *F.*, and Cosmulesco, *I.*, hyperglycemia in the normal dog; free sugar; protein-bound sugar, A., 1181.  
and Debiene, *Y.*, carbohydrate metabolism following extensive experimental liver damage, A., 1322.  
and Laurent, *Y.*, effect of insulin on phloridzin glycosuria in the normal dog, A., 192.  
Plantefol, *A.*, and Plantefol, *L.*, reactions of respiratory exchanges of diabetics to ingestion of glucose and to insulin, A., 739.  
See also Bierry, *H.*
- Rathmann, *F. H.* See Roginski, *S. Z.*
- Rathsack, *K.* See Opitz, *K.*
- Ratner, *A.*, Tolmatshev, *P.*, and Polesitski, *A.*, regularities in isomorphous separation of small amounts of substances with crystallising salts, A., 1009.
- Ratner, *E. I.*, cause of the decreased adsorption capacity in some soils after treatment with 0.05*N*-hydrochloric acid; nature of soil acidity, B., 882.
- Ratschinski, *F. J.* See Alexeevski, *E. V.*
- Ratti, *A.* See Devoto, *G.*
- Ratray, *G.* See Milne, *G. R.*
- Ran, *M. A. G.*, dipole moments of *p*-chloro- and *p*-bromophenol, A., 888.
- Rau, *Y. V. S.* See under Rao, *Y. V. S.*
- Raub, *E.* See Moser, *Hanns.*
- Rauchenberger, *W.* See Schlubach, *H. H.*
- Raucourt, *M.*, arsenic deposited [on fruits, leaves, and soil] after insecticide treatment, B., 727. Phytopharmacy, B., 839.
- Raudnitz, *H.*, constitution of prodigiosin, A., 958.  
and Peschel, *J.*, degradation of perhydronorbinxin to perhydrocrocin, A., 807.  
Petrú, *F.*, and Stadler, *A.*, dehydrogenation of cholatrienic acid. II., A., 712.  
See also Karrer, *P.*
- Rauer, *H.*, distribution of fat in milk, A., 525.
- Raum, *H.*, influence of manuring on yield and botanical composition of a natural meadow, B., 163.
- Rausch, *E.*, thermodynamics of refrigerators, B., 767.
- Rausehning, *S.* See Grimmer, *W.*
- Rauterberg, *E.*, solubility of soil phosphates, B., 359. Action of lime, superphosphate, and silicic acid on soil reaction in pot experiments, B., 803. Adsorption of phosphoric acid by soil, B., 883.  
See also Dix, *W.*
- Ravaz, *L.*, Dupont, *E.*, and Callaudaux, *R.*, reddening of vines, B., 839.
- Ravdin, *I. S.*, Johnston, *C. G.*, and Morrison, *P. J.*, absorption of glucose from intestinal loops, A., 1074. Absorption of glucose from the intestine, A., 1193.  
See also Johnston, *C. G.*
- Raven, *C. P.*, glycogen metabolism of the organisation centre in amphibian gastrula. I., A., 1074.
- Ravenna, *C.*, and Nuccorini, *R.*, new cyclic dipeptide of aspartic acid, A., 164. Behaviour of aspartic acid when heated in glycerol; supposed *cyclodipeptides* of asparagine, A., 616.
- Ravitsch, *M. I.* See Sagaidatschni, *A. F.*
- Ravitsch, *M. N.* See Kurnakov, *N. S.*
- Raw, *G.*, [pneumatic shaking-table for] separation of solid materials of different specific gravities, (P.), B., 770.
- Rawling, *F. G.* See Rue, *J. D.*, and Traquair, *J.*
- Rawlins, *F. I. G.*, anisotropic melts: change of state, A., 1108.
- Rawlinson, *H.*, hypochlorites as disinfectants (disinfectants and foodstuffs), B., 253.
- Rawn, *A. M.*, digestion of bar screenings [from sewage], B., 253.
- Rawson, *M.*, and Pickard, *J.*, glutathione and non-glucose reducing substances of blood, A., 1065.
- Rawstron, *F. C.* See Robinson Bros.
- Rây, *A.* See Rây, (Sir) *P. C.*
- Ray, *F. E.*, action of nitrous acid on aminophenyl-2-hydroxy- $\alpha$ -naphthylmethane; correction, A., 155. Nickel tubes in organic combustions, A., 731.  
and Moomaw, *W. A.*, Betti condensation; effect of substituents on stability and optical rotation of the resulting amines, A., 389. Synthesis and resolution of *dl*-phenyl-2-methoxy- $\alpha$ -naphthylmethylamine, A., 1157.
- Rây, *J. N.*, Ahluwalia, *G. S.*, and Kochhar, *B. D.*, preparation of anti-malarials, A., 400.  
See also Ahluwalia, *G. S.*, Bhalla, *A. L.*, Ghose, *T. P.*, and Haq, *M. A.*
- Ray, *J. R.* See Ray, *T.*
- Ray, *K. W.*, platinum-cadmium alloys, B., 673.
- Rây, *P.*, substituted complex cobalticyanides. I. Hexapotassium dicobalt- $\mu$ -sulphito-decacyanide, A., 40.
- Rây, (Sir) *P. C.*, new method of fluorination of organic compounds, A., 1033.
- Adhikari, *N.*, and Ghosh, *R.*, complex compounds of iridium. II. Compounds of organic sulphides and pyridine, A., 1040.
- Mitra, *S. K.*, and Ghosh, *N. N.*, thio-ketonic esters. III. Alkylation of ethyl thioacetate, A., 698.
- Sarkar, *P. B.*, and Rây, *A.*, fluorination of organic compounds; monofluoroacetone, A., 1277.  
and Sen-Gupta, *Sailes C.*, new type of complex platinum compounds; ter- and quinque-valent platinum. V., A., 476.
- Rây, *P. R.*, simple and complex iodates of titanium, A., 366. Constitution of molecular compounds, A., 664.  
and Chackravarti, *S. C.*, substituted complex cobalticyanides. I. Disulphitetetracyanocobaltates and influence of substitution on the properties of complex ions, A., 476.
- Ray, *S. K.*, polyhalides. II. Formation and dissociation of chlorodibromides and tribromides of sodium, potassium, strontium, and barium, A., 904.
- Ray, *S. N.* See Birch, *T. W.*, Harris, *L. J.*, and Moore, *T.*
- Ray, *T.*, and Ray, *J. R.*, heater, (P.), B., 2. Crystal-building pan, (P.), B., 449. Washing and production of salt, etc., (P.), B., 702.
- Raybaud, *L.*, advantages of germinating grain as fodder for farm animals, especially the horse, B., 364.
- Raybestos Co., friction material, (P.), B., 256.
- Raybin, *H. W.*, colour reaction of sucrose, A., 811.

- Ray-Chaudhuri, B. P., gyromagnetic effect in ferromagnetic powders, A., 114. Theory of diamagnetism for mono- and poly-nuclear systems, A., 448.
- Ray-Chaudhuri, S. See Chaudhuri, S. G., and Mukherjee, J.
- Rayleigh, (Lord), fluorescent excitation of mercury by the resonance frequency and by lower frequencies, V., A., 440. Beryllium and helium, A., 692.
- Raymond, A. L. See Levene, P. A.
- Raymond, G., and Morgen, R. A., filtering apparatus, (P.), B., 130.
- Raymond, W. H. See Plimmer, R. H. A.
- Raymond-Hamet, M., action of tyramine on excitability of the cardiac vagus, and influence of this amine on the effects of nicotine, A., 185. Identity of Karrer's corynanthine and Fourneau's amorphous alkaloid from *Pseudocinchona africana*, A., 1313. See also Bourcet.
- Razafimahery, R., [determination of] blood-sugar. I.—III., A., 82, 295.
- Razumov, A. S. See Pentka, N. A.
- Razumov, K. A., concentration tests on Degtyar copper-iron ore deposits, B., 920.
- Razuvaiev, G. A., and Bogdanov, I. F., synthesis of metallo-organic compounds of titanium, A., 1178.
- and Koton, M. M., nitration and bromination of heterocyclic arsenic compounds, A., 406. Catalytic decomposition of organo-metallic compounds. I. and II., A., 730, 1178.
- and Malinovski, V. S., intensely coloured products of the reduction of dihydrophenarsazine derivatives, A., 519. Hydroxy-derivatives of 10-alkyl(aryl)-9:10-dihydrophenarsazine, A., 1177.
- Malinovski, V. S., and Lopatina, E. P., oxidation of arsenious sulphide by atmospheric oxygen in alkaline media, under pressure, and at high temperatures, A., 790.
- Re, P. M. See Potick, D.
- Read, C. D., and Standard Oil Co., petroleum tar, (P.), B., 740.
- Read, H. H., quartz-kyanite-rocks from Shetland Islands and their bearing on metamorphic differentiation, A., 588.
- and Dixon, B. E., stichtite from Shetland Islands, A., 588.
- Read, J., and Grubb, W. J., menthone series. X. Complete optical resolution of *dl*-neomenthol by means of *l*-menthol, A., 397.
- Grubb, W. J., and Malcolm, D., menthone series. XI. Diagnosis and characterisation of the stereoisomeric menthols, A., 397.
- and McMath, (Miss) A. M., resolution of chloriodomethanesulphonic acid, A., 49.
- See also Howards & Sons, Ltd.
- Read, J. C. See Brit. Thomson-Houston Co.
- Read, J. W., and Bailey, C. H., certain effects of ultra-violet irradiation on chemical and nutritive properties of baked products, B., 442.
- Read, R. R., and Sharp & Dohme, Inc., butylphenol composition, (P.), B., 999. See also Miller, E.
- Read, R. S., and Crucible Steel Co. of America, metallic alloys [18.8 chromium-nickel steel], (P.), B., 68.
- Read, T. A., [ore]-concentrating practice of the Broken Hill South, Ltd., B., 792.
- Read, W. C., and Electro Metallurg. Co., silicothermic smelting process and charge therefor, (P.), B., 310.
- Read, W. P. See Edsdall, J. T.
- Reader, V. See Barnes, H., Heard, R. D., and Kinnersley, H. W.
- Ream, H. S., jun., Hein, F. J., and Shengango-Penn Mold Co., [tin-zinc] alloy, (P.), B., 312.
- Reavell, J. A., modern chemical plant, 575.
- Reay, G. A., influence of freezing temperatures on haddock's muscle. I., B., 937.
- Rebek, M., new theory of chemical compounds, A., 339.
- Rebek, R., and Mandrino, G., pseudo-bases and compounds with reactive groups; conductivity changes in systems of crystal-violet base and carboxylic acids, A., 1124.
- Rebenko, N. L. See Iljin, B. V.
- Reber, J. W. See Woodall-Duckham (1920), Ltd.
- Rebernak, A. See Vernon, C. C.
- Rébert, C. See Manuf. E. Zundel.
- Rebinder, P. A., and Kalinovskaja, N. A., decrease in surface energy of solid bodies and the work of dispersion in the formation of an adsorption layer, A., 1010.
- Rebmann, L. See Pummerer, R.
- Reboul, G., radioactive phenomena of second order and artificial origin, A., 442. Very soft radiation from insulators, A., 884.
- Reboul, J., emission of slightly penetrating radiation by some metals, A., 659.
- Reche, K., coreless induction furnaces. I. Quantitative calculations. II. Experimental investigations, B., 635.
- Réchid, (Mme.), metaphosphoric acids, A., 475. Thermal decomposition of ammonium [dihydrogen] phosphate, A., 579.
- See also Pascal, P.
- Record, P. R. See Hunt, C. H., and Wilder, O. H. M.
- Records, E. H. See Louttit, J. E.
- Recoura, A., triaquotrichlorochromium and tetra-aquohexachlorodichromium, A., 796.
- Redburn, W. T., and Shearer, W. N., equilibrium in liquid systems of three components, A., 670.
- Redd, R. See Bury, C. R.
- Reddelien, G. See Gen. Aniline Works.
- Reddish, W. T., dry-cleaning [of fabrics, etc.], (P.), B., 622.
- See also Heckel, H., and Peirce, J. O.
- Redemann, C. E. See Dunn, M. S.
- Redenz, E., relation between mobility and metabolism in the spermatozoa of mammals, A., 305.
- Reder, R. See Fischer, Franz, and Pichler, H.
- Redfield, A. C. See Edsdall, J. T.
- Redlich, O., relation between the Raman spectra of different halides, A., 998.
- Kurz, T., and Rosenfeld, P., Raman effect of molecules of the types XY<sub>2</sub> and XY<sub>3</sub>, A., 113.
- Redmond, J. C., precipitation and titration of magnesium oxyquinolate in presence of calcium oxalate, and its application in the analysis of Portland cement and similar silicates, B., 749.
- Reece, F. M., and O'Brien Varnish Co., treatment of China-wood [tung] oil to produce a liquid ungelled oil, (P.), B., 1066. Non-drying oil and product thereof, (P.), B., 1066.
- Reece, W. W., air conditioning in bakery products, B., 702.
- Reed, A. See Farmer, C. J.
- Reed, C. I., Dillmann, L. M., Thacker, E. A., and Klein, R. I., calcification of tissues by excessive doses of irradiated ergosterol, A., 1340.
- Thacker, E. A., Dillmann, L. M., and Welch, J. W., effects of irradiated ergosterol on metabolism of normal dogs, A., 1340.
- Reed, D. W. See Wyckoff, R. D.
- Reed, G. B., and Boyd, E. M., pyocyanine and growth potential changes of *Ps. pyocyanus*, A., 639.
- Reed, H. C., soluble solids of tannin solutions and methods of determination [in tannin analysis], B., 117.
- Reed, M. C., and Goodrich Co., B. F., rubber composition and method of preserving rubber, (P.), B., 979.
- Reed, R. M., identification of phenols in essential oils, B., 732.
- Reed, W. R. See Britton, E. C.
- Reerink, E. H., Wijk, A. van, and Niekerk, J. van, physical methods in vitamin research, A., 195.
- Rees, H. G., iron and copper in liver extracts, A., 967. Occurrence of lauric acid in fish oils, B., 435.
- and Salway, A. H., B.P. 1932 method for determining inorganic iodine in desiccated thyroid gland, A., 298.
- Rees, R. L. See Hewson, G. W.
- Rees, S. H., properties of cold-worked sorbitic and austenitic alloy-steel wire, B., 919.
- Rees, W. J., and Clark, L. H., scattering of  $\gamma$ -rays in air and water, A., 1100.
- See also Hibbott, H. W., and Priestley, J. E.
- Rees, William J., toxic action. VI. Toxicity of aliphatic ketones towards potato tuber, A., 653.
- Reese, C. H. See Johnsen, B.
- Reese, L. V., Johnson, G. W., and Amer. Laundry Machinery Co., paper pulp extractor, (P.), B., 861.
- Reesema, N. H. S. van, distillation or deodorisation of liquids at low pressure, (P.), B., 817.
- Reeve, H. A. See Steacie, E. W. R.
- Reeve, L., vacuum fusion method for determination of gases in metals, B., 872.
- Reevy, W. O., and Gordon, A. R., use of micro-coulometers in the determination of transport numbers by the moving boundary method, A., 925.
- Reeves, E. B. See Weech, A. A.
- Refractory & Engineering Corporation. See Clark, H. N.
- Regan, J. F., and Barnes, B. O., relation of the pituitary to experimental diabetes, A., 643.
- Regé, A. See Soldi, A.
- Regener, E., energy of cosmic rays, A., 206. Absorption curves of ultra-radiation and their explanation, A., 552.
- See also Nestle, R.
- Reger, D. B. See Kaplan, B. B.
- Reger, M. See Alterthum, H.
- Reggiani, G. See Giua, M.
- Reggiani, M., photochemical reduction of carbon dioxide, A., 35.
- Reggiori, A., decomposition of rustless steels containing 18% Cr and 8% Ni, B., 630.
- Reglade. See Wilmet.

- Regler, *F.*, magnetism and crystal distortions; X-ray investigations of  $\alpha$ -iron, A., 667.
- Régner, *M. T.*, and Simonnet, *H.*, biological assay of the parathyroid hormone, A., 1336.
- Rehorst, *K.*, stereochemistry of sugar carboxylic acids, A., 808.
- Reich, *G. T.*, utilisation of waste organic mixtures [recovery of potash from fermentation residues], (P.), B., 729.
- Reich, *W. S.*, glycogen triacetate, A., 149.
- and Damansky, *A. F.*, constitution of starch; method of acetylation, A., 811. Starch; cinnamoyl esters, A., 1038.
- Reich-Rohrwig, *W.*, water-bath for micro-analysis, A., 140.  
See also Hecht, *F.*
- Reichel, *C.* See Gossner, *B.*
- Reichel, *F. H.*, [vinyl] coating compositions, etc., (P.), B., 436.
- Reichel, *H.*, action of double pneumothorax, A., 526.
- Reichel, *S. von.* See Wolf, *L.*
- Reichelt, *H.*, practical application of conductivity measurement in industry, B., 875.  
See also Hesse, *E.*
- Reichenheim, *O.* See Lau, *E.*
- Reicher, *W.*, invert sugar syrup, B., 1030.  
See also Smoleński, *K.*
- Reichert, *B.*, synthesis of 2:3-dimethoxyfluorenone, A., 68.  
See also Mannich, *C.*
- Reicherter, *G.*, hardness-testing of materials, (P.), B., 176.
- Reichle, *C.* See Lehmann, *H.*
- Reichle, *H. S.*, and Goldblatt, *H.*, sensitisation of guinea-pigs and production of allergy and anaphylaxis to tuberculo-protein, A., 1083.
- Reichmann, *R.*, and Siemens-Schuckertwerke A.-G., [electrically insulating] bodies from aluminium oxide, (P.), B., 625.
- Reichstein, *T.*, 4-hydroxy-3-methoxystyrene (4-vinylguaiacol), A., 61.
- and Grüssner, *A.*, constitution of methyluric acid, A., 280. Synthesis of 2:3- and 3:4-dimethylfurans, A., 281.
- Furanpolycarboxylic acids. II. Furan-2:3:5-tricarboxylic acid, A., 719.
- Grüssner, *A.*, and Oppenauer, *R.*, synthesis of *d*-ascorbic acid (*d*-form of vitamin-C), A., 594. Synthesis of *d*- and *l*-ascorbic acid (vitamin-C), A., 1035, 1143.
- Grüssner, *A.*, Schindler, *K.*, and Hardmeier, *E.*, furanpolycarboxylic acids, A., 510.
- and Hirt, *R.*, synthesis of 4-hydroxycoumarones and isotubaic (rotenic) acid, A., 281.
- and Oppenauer, *R.*, reductive acid, a strongly reducing product of the degradation of carbohydrates, A., 1299.
- and Trivelli, *G.*, sorbyl chloride [ $\alpha$ -chloro- $\Delta^8$ -hexadiene]. II, A., 1139.  
See also Ruzicka, *L.*
- Reid, *A.*, and Evans, *J. T.*, cements and well cementing: effect of chlorides on the setting and hardening of cement, B., 307.
- Reid, *E.*, Quigley, *J. P.*, and Myers, *V. C.*, animal diastases. V. Blood- and tissue-diastases with reference to the depancreatized dog, A., 302.  
See also Myers, *V. C.*
- Reid, *E. E.* See Du Pont de Nemours & Co., *E. I.*, Harden, *W. C.*, Jones, *W. N.*, jun., Meyer, *J. D.*, Ruhoff, *J. R.*, and Tucker, *N. B.*
- Reid, *E. F.*, jun. See Scott, *A. F.*
- Reid, *E. H.* See Brit. Thomson-Houston Co.
- Reid, *E. W.*, Lewis, *D. C.*, and Carbide & Carbon Chemicals Corp., ethanolamines, (P.), B., 998.
- Reid, *H. G.* See Mooney, *R. B.*
- Reid, *J. A.* See Richards, *W. T.*
- Reid, *J. B.* See Gann, *J. A.*
- Reid, *J. D.* See Lynch, *D. F. J.*
- Reid, *R.*, variations in cooking kraft pulp, B., 56.
- Reidemeister, *W.* See Kappeller, *G.*
- Reidt, *H.*, apparatus for washing with boiling water, A., 367.
- Reif, *G.*, and Heide, *R. von der*, jun., adsorption of organic acids in mixtures of alcohol and water by activated charcoal, with special reference to acids which occur in foodstuffs, B., 331.
- Reif, *W.* See Holzer, *H.*
- Reifenberg, *A.*, classification of soils on the basis of the composition of their colloidal fractions, A., 1032. Cataphoretic determination of the fertiliser requirement of soil. II. Phosphate requirement, B., 118. Classification of soils on basis of composition of their colloid fractions. II. Classification of American soils, B., 559.
- and Adler, *S.*, classification of soils on basis of composition of their colloid fractions. I. Isolation of the colloid fraction by cataphoresis. III. Terra rossa formation in comparison with limestone weathering under varied climatic conditions. IV. Comparison between the weathering of limestone and basic eruptive rocks in the Mediterranean area, A., 929; B., 559.
- and Ewbank, *E. K.*, soil profiles from Cyprus. I. Soils over limestone and serpentine. II. Profiles over diabase, gabbro-norite, and pillow lava, A., 803, 1032.
- Reifer, *J.* See Lang, *R.*
- Reift, *F.*, acidic properties of metal salt hydrates, A., 25.
- Reihlen, *H.*, and Hühn, *W.*, stereochemistry of platinum metals and nickel, A., 74.
- Bivalent rhodium, A., 1131.
- Reilly, *H. W.* See Zawels, *E. A.*
- Reilly, *J.*, and Donovan, *P. P.*, cryoscopy of glycogen and inulin in acetamide, A., 149.
- Reilly, *P. C.* See Derby, *I. H.*, Edwards, *C. B.*, and Higburg, *W.*
- Reiman, *M. A.*, Rubin, *B. I.*, and Chudinov, *O. P.*, fish skins: a new raw material for leather substitute; skins of cod (*Gadus cillar*), wolf fish (*Anarchochias minor* and *A. latifrons*), and *G. aeglefinus*, B., 438.
- Reimann, *A.* See Chem. Fabr. *J. A. Benckiser G.m.b.H.*
- Reimann, *A. L.*, clean-up of hydrogen by magnesium, A., 1112.
- Reimann, *H. A.* See Fischer, *L. C.*, and Moen, *J. K.*
- Reimers, *F.* See Baggesgaard-Rasmussen, *H.*
- Reimers, *J. H. W. T.*, and Smuts, *D. B.*, significance of calcium and phosphorus in development and growth of pigs, A., 743.
- Rein, *H.*, continuous recorder of respiratory metabolism, A., 1064.
- Reinau, *E. A.*, determination of water in soils by the Houldack-Nitsch alcohol method, B., 1025.
- Reindel, *W.* See Pummerer, *R.*, and Schuler, *W.*
- Reinders, *W.*, and Beukers, *M. C. F.*, effect of  $p_H$  and concentration of reducing agent on developing power of a [photographic] developer, B., 525.
- and Hamburger, *L.*, silver nucleus theory of the latent image. II. Size and nature of [latent image] nuclei and [primary silver] nuclei in silver bromide emulsions, A., 359.
- Reindollar, *W. F.* See Krantz, *J. C.*, jun.
- Reinecke, *O.* See Terres, *E.*
- Reinecke, *R.*, two "methyl" groups of normal saturated hydrocarbons, A., 46.
- Tetrahedral representation of the carbonate and nitrate groups, A., 215.
- Reinemer, *P.*, transmineralisation in the lymphatic glands, A., 417.
- Reiner, *H.*, crystallisation of sugar from fruit syrups, B., 88.
- Reiner, *L.*, and Chao, *S. S.*, mechanism of chemotherapeutic action. VIII. Variation in size of the spleen following treatment with arsenicals, blockade with India-ink, and infection with *T. equiperdum*, A., 191.
- and Leonard, *C. S.*, mechanism of chemotherapeutic action. III. Differentiation between parasitocidal and virulence-decreasing action of arsenicals. V. Rate of methylene-blue reduction and decrease in virulence of trypanosomes treated with arsenicals with and without sodium thioglycollate. IX. Role of  $NH_4$ ,  $OH$ , and  $As_2S_3$  groups in parasitotoxic action of arsenamine derivatives. X. Toxic action of hydrogen peroxide on trypanosomes, A., 191, 192.
- Leonard, *C. S.*, and Chao, *S. S.*, mechanism of chemotherapeutic action. IV. Effect of blockade on the chemotherapeutic action of the plasma of animals treated with arsenicals. VI. Binding of arsenicals by trypanosomes *in vitro*. VII. Binding of arsenicals by arsenic-resistant trypanosomes *in vitro*, A., 191.
- Reiner, *Markus*, and Schoenfeld-Reiner, *R.*, viscosimetric investigations on solutions of high-molecular natural substances. I. Rubber in toluene, A., 1115.
- Reiner, *Miriam*, and Sobotka, *H.*, tyrosine and cystine content of serum-proteins, A., 733.  
See also Tuchman, *J. R.*
- Reiner, *S.*, stability of hard rubber [ebonite] towards corrosive liquids, B., 930.
- Reinhardt, *H.*, zinc oxide, (P.), B., 60.
- Reinhardt, *G. A.*, and Enrich, *R. H.*, ferrous articles, (P.), B., 674. Electrolytic method of continuous [metal] sheet manufacture and apparatus therefor, (P.), B., 674.
- Reinhardt, *L.* See Berl, *E.*
- Reinhardt, *R.*, analysis of compounded mineral oils, B., 374.
- Reinhardt, *U.*, effect of differences of barley quality in malting and brewing, B., 729.
- Reinhardt, *W.* See Schwarz, *R.*
- Reinhold, *C.*, substance for filling of hydraulic apparatus, (P.), B., 4.



- Reinhold, H., thermo-electric force and Ludwig-Soret effect in solid salts and mixed crystals, and their relation to electrolytic conductivity, A., 908.
- and Blachny, A., thermoelectric investigations on solid electrolytes, A., 677.
- and Schulz, R., Ludwig-Soret effect and ionic mobilities in cuprous bromide-silver bromide mixed crystals, A., 571.
- See also Tubandt, C.
- Reinhold, J., potash fertiliser trials with vegetables, B., 839.
- and Schmidt, M., soil mulching with various artificial materials, B., 563.
- Reinicke, R., principles of X-ray structure results and their possible explanation by tetrahedral domains of atomic influence, A., 450. Tetrahedral field of action of atoms. III., A., 552.
- Reinius, E. See Hedelius, E.
- Reinmuth, E. See Honecamp, F.
- Reinwein, H., unknown nitrogenous substances in urine. V. Occurrence of  $\gamma$ -butyrobetaine in dog's urine, A., 627.
- See Jakobson, B. M.
- Reis, A., and Glöckauf, E., method of investigating gas reactions in absence of wall effects, A., 1016.
- Reis, F. See Powers, H. H.
- Reischel, W. See Wedekind, E.
- Reiser, B. See Steigerwaldt, F.
- Reisinger, J. A. See Walker, A. M.
- Reisman, E. See Flanzer, J. A., and Jones, L. L.
- Reisner, H. See Majer, E. H.
- Reiss, F. O. See Aladdin Industries, Ltd.
- Reiss, H. See Brauer, K.
- Reiss, M. See Lustig, A.
- Reiss, Max. See Winter, K. A.
- Reiss, O., correlation between composition and coloration of sugar solutions on heating, B., 120. Coloration of sugar solutions on heating and during evaporation, B., 807.
- Reissinger, S. See Pummerer, R.
- Reiter, T., Gabor, D., and Siemens & Halske A.-G., apparatus for treating living cells by means of rays of light, (P.), B., 274.
- Reith, J. F., colorimetric determination of arsenic by the Mayencon-Bergeret method, A., 583. Iodine content of the atmosphere in Holland, A., 587. Daily administration of inorganic iodine in Dutch tap-water, A., 979. Iodine content of Dutch soils in relation to geological and agricultural problems, A., 1032. [Microchemical] determination of arsenic [in milk], B., 90. Detection of silver in bismuth salts, B., 505. Ether for narcosis, B., 938.
- See also Bouwman, J. H. A.
- Rejha, B. See Křepelka, J. H.
- Rektorik, Z., determination of morphine in opium and official preparations, B., 684.
- See also Tomiček, O.
- Relling, T. See Stody, W. F.
- Rembert, E. W., and Tide Water Oil Co., distillation and conversion of mineral oils, (P.), B., 852.
- Remesov, I., Tavaststerna, N., and Matrossovitch, D., lipin metabolism. V. Blood-lipase of carnivora and herbivora during experimental lipemia. VI. Effect of cholesterol on secretion of pepsin, A., 1073.
- Remezov, N. P., characteristics of the organic matter of soils of the U.S.S.R. I. N:C ratio of the organic matter, A., 929. Determination of adsorbed hydrogen ions [in soils], B., 516.
- and Vlasova, (Mme.) M. M., characteristics of the organic matter of soils of the U.S.S.R. II. Approximate qualitative composition of the organic matter, A., 929.
- Remington, R. E. See Coulson, E. J., and Kolnitz, H. von, and Levine, H.
- Remington Arms Co., Inc. See Brün, W., Burns, J. E., Herz, E. von, and Woodford, W. H.
- Remmey, G. B., high-temperature furnace, (P.), B., 656.
- Remy, E., lipin content of various types of tubercle bacillus, A., 537. Baden white wines of the 1930-1932 season, B., 328. Copper contents of milk and milk preparations, B., 330.
- and Schreiber, W., biological and chemical investigation on German army bread, whole rye bread, and white bread to determine their biological value with rats, B., 1033.
- See also Uhlenhuth, P.
- Remy, H., sorption of gases, vapours, and mists, A., 346.
- [with Hene, W.], adsorption of gases by active charcoal, A., 120. Adsorption measurements with streaming gases, A., 346.
- and Busch, H., complex fluoro-salts of tervalent iron, A., 797.
- and Laves, G., chloro-complex salts of bivalent copper, A., 360. Chloro-complex salts of univalent copper, A., 474.
- and Siegmund, R., determination of potassium and sodium as sulphates, A., 922.
- Remy, T., and Dhein, A., physiological basis of potash salt manuring, B., 439.
- Dhein, A., and Wulkotte, G., periodic variations in the protein value of pasturage, B., 360.
- Remy-Genneté, P., alkaline-earth hydrides, A., 569. Existence of the element 87, A., 578. Alkaline-earth metal hydrides, A., 683.
- Renaud, F., alloys of gold and silver containing nickel, B., 1015.
- Renaud, P., nitrogen phosphide, A., 1257.
- Renc, A., interaction of phosphorus bromides and chlorides. I. and II., A., 1130, 1258.
- Rencker, E., dilatometric study of silica-soda-beryllia glasses, A., 1247.
- Rendel, T. B. See Hehl, L. E.
- Rendle, T., changes in raspberries after picking, B., 282.
- Renescu, N. E. See Olszewski, B.
- Renfrew, A. See Imperial Chem. Industries.
- Renfrew, A. G., and Cletcher, L. H., optical rotation of *d*-talonamide and of salts of *d*-talononic acid, A., 55.
- See also Hooper, F. E.
- Renkowitz, E., and Stahl-Chemie Ges.m.b.H., red pigment of iron oxide, (P.), B., 31.
- Renner, H. O. See Haas, L. W.
- Rennerfelt, I., electric [induction] furnace, (P.), B., 112.
- Reno, R. E., jun., and Follansbee Bros. Co., production of low-core loss magnetic material, (P.), B., 472.
- Renshaw, R. R., and Hopkins, C. Y., basis for physiological activity of -onium compounds. XII. Aryl ethers of choline, A., 603.
- See also Hunt, R.
- Rentschler, H. C., Henry, D. E., and Smith, K. O., photo-electric emission from different metals, A., 202.
- See also Westinghouse Lamp Co.
- Rentschler, M. J. See Jeavons, W. R.
- Renz, C., action of ammonia on mercurous chloride, A., 37.
- Renz, J. See Raab, H. A.
- Repach, K. H. See Martin, Arthur R.
- Republic Carbon Co. See Broadwell, B. E.
- Repulse, Inc. See Bottrell, H. T.
- Reschke, J., methylnarcotine and vitamin-C, A., 542.
- See also Schenck, M., and Scheunert, A.
- Research Corporation, electrostatic purification of gases, (P.), B., 675.
- See also Hedberg, C. W. J., Meston, A. F., and Wintermute, H. A.
- Research Corporation of New York, electrically removing entrained particles from gas streams, (P.), B., 73. Apparatus for electrically precipitating suspended particles from gaseous fluids, (P.), B., 273. Electrically precipitating suspended particles from a gas, (P.), B., 717.
- Resh, M., and Kantor, L., character of changes in the fibre in the process of grinding, B., 859.
- Resinous Products & Chemical Co., Inc. See Bruson, H. A.
- Respas, Inc. See Respess, R. B.
- Respess, R. B., and Respas, Inc., continuous process of reducing or re-forming wood or other fibrous material [for wallboard, etc.], (P.), B., 1006. Fibrous product [fibre-cement or -concrete] and its manufacture, (P.), B., 1006.
- Retezeanu. See Urechia, C. L.
- Retsof Mining Co. See Courthope, T. F.
- Rettenmaier, A., increase in benzol extraction in the Ruhr district, B., 1041.
- See also Lenze, F.
- Retter, K. F. See Abel, E.
- Retting, L. F. See Weinstein, L.
- Reuning, E., varieties of microlite from Donkerhuk, South-West Africa, A., 1029.
- Reusch, H. J., and Wartenberg, H. von, m.-p. diagram of refractory oxide [mixtures] with lime, A., 1245.
- See also Wartenberg, H. von.
- Reuss, O., [means for] distribution of the blast in cupolas, (P.), B., 112.
- Reusse, W., production of slow canal rays, A., 109. Energy loss of slow canal rays by passage through a solid body, A., 109.
- Reuter, B., and Renter, M., manufacture of compounds of 4-dimethylamino-1-phenyl-2:3-dimethyl-5-pyrazolone with *p*-aminobenzoic esters, (P.), B., 939.
- Renter, E. See Lipschitz, W.
- Renter, F., Willstaedt, H., and Zirm, K. L., action of peroxidase. III., A., 862.
- See also Willstaedt, H.
- Reuter, M. See Braun, J. von, and Renter, B.
- Revelle, R., calcium equilibrium in seawaters. V. Precipitation by removal of carbon dioxide under aseptic conditions. VI. Precipitate obtained by removal of carbon dioxide from seawater, A., 251.
- Revere Copper & Brass, Inc. See Thomas, C. W., and Wilkins, R. A.

- Revere Rubber Co., Gibbons, W. A., Hazell, E., and Keen, A. W., rubber filaments, (P.), B., 357.  
See also Gibbons, W. A.
- Revis, C. See Tafel, A.
- Revol, L. See Leulier, A.
- Revva, F. K., and Ilarionov, V. V., determination of hypochlorite, A., 920. Determination of iodates in presence of hypochlorites, bromates, and chlorates, A., 921.
- Rewald, B., phosphatides in leather manufacture, B., 161. Differentiation of lecithin preparations of animal and vegetable origin, B., 651. Light-coloured mixture of vegetable phosphatides and fatty oil, (P.), B., 938.
- and Höfing, W., determination of effect of lecithin on the viscosity of chocolate, B., 41.
- and Riede, W., changes during ripening in the fat, phosphatide, and protein contents of seeds, A., 648.
- and Schwiager, A., phosphatide content of apples, pears, plums, and peaches, A., 438. Phosphatide content of skin, A., 523.
- Rewald, B. A. See Hanseatische Mühlenwerke A.-G.
- Rexer, E., blue rock-salt, A., 662. Additive colouring of alkali halide crystals. III. Spectrophotometric results, A., 1227.
- Rey, J. See Bretin, P.
- Reychler, A., vaporisation of water, A., 217.
- Reyerson, L. H., adsorption of hydrogen by silica gel at elevated temperatures, A., 1009.  
See also Livingston, R.
- Reyes, F. R. See Santos, A. C.
- Reymann, G. See Ludloff, H.
- Reynard, O., and Thompson, E. H., consolidation of tars and pitches, (P.), B., 951.
- Reynolds, D. S. See Jacob, K. D.
- Reynolds, F. L. See Dow Chem. Co., and Gann, J. A.
- Reynolds, G. D. See Glasstone, S.
- Reynolds, R. J. W. See Cox, E. G., and Herbert, R. W.
- Reynolds, (Miss) T. M., new substituted glucosides, A., 493.
- Rézabek, G. See Dohogne, A.
- Rezat Bey. See Ligor Bey.
- Režek, A., and Pinter, T., mineral waters of Rogaska Slatina. II. Catalytic action, A., 802.  
See also Lieb, H.
- Reznek, S. See Callaway, J.
- Reznikoff, L. See Blumer, C.
- Rezyl Corporation. See Ellis, C.
- Rhead, F. A., carbonisation with 103-in. vertical retorts, B., 256.
- Rheam, G. T. T. See North Metropolitan Electric Power Supply Co.
- Rhebinder, P. A. See Lipetz, M. E.
- Rhee, S. E., and Kim, C. H., effect of calcium chloride, vigantol, and parathormone on the blood serum-calcium of sarcoma rabbits, A., 1321.
- Rheinberger, M. See Collett, M. E., and McGavran, J.
- Rheinboldt, H., simple apparatus for thermal gas reactions, particularly for thermal dissociation of water vapour, A., 1264.
- Rheineck, A. E., and Gisvold, O., avoidance of emulsification in defatting operations, B., 927.  
See also Long, J. S.
- Rheiner, A., incompletely acetylated fibre cellulose, B., 1050.
- Rheinfels, accident prevention in the chemical industry, B., 207.
- Rheinisch-Westfälische Sprengstoff Akt.-Ges., celluloid-like artificial masses, (P.), B., 399.
- Rheinwald, H., nitrogen fixation by nodule bacteria in the field, B., 599. Nitrate concentration of the soil solution and factors determining it, B., 725.
- Rhiem, H. C., determination of zinc sulphide in lithopone, B., 77.
- Rhines, C. M. See Lindsey, G. A.
- Rhoades, H. F. See Bayer, L. D.
- Rhoads, A. E. See Crosby, E. L.
- Rhodes, C. W. See Highways Construction, Ltd.
- Rhodes, E. See Woodman, R. M.
- Rhodes, E. O., road-tar consistency conversion chart, B., 1042.
- Hager, F. D., and Amer. Tar Products Co., preparing a [bituminous] composition of matter [containing rubber], (P.), B., 722.  
See also Amer. Tar Products Co.
- Rhodes, F. H., and Erickson, I., efficiencies of tar-oil components as preservative for timber, B., 966. Effect of tar acids on wetting of wood by coal-tar oils, B., 1057.
- and Younger, K. R., determination of pyridine bases in presence of ammonia, A., 1180.
- Rhodes, H. T. F., and Cofman, V., identification of thyroid tablets, B., 571.
- Rhodes, J. E. W., hydrolysis of acetone-semicarbazone, A., 350.
- Rial, W. D., and Richfield Oil Co. of California, colour coat for cemented surfaces, (P.), B., 508.  
See also Black, J. C.
- Riaza, A. See Zschacke, F. H.
- Ribas, J., and Tapia, E., interaction of etherates of magnesium halides and ethylene oxides. II. Interaction of magnesium bromide etherate and some mono-substituted aliphatic ethylene oxides, A., 48. Reaction of mono-substituted ethylene oxides (epoxides) with organic magnesium compounds; mechanism of reaction, and the constitution of the Grignard reagent, A., 487.
- Ribaud, G., heating by high-frequency induced currents, A., 248.
- Ribeiro, B. A. See Gemmil, C. L.
- Ribèreau-Gayon, J., proteins in white wine. I.—III., B., 247. Iron in wine: can it be present in complexes? B., 601. Colorimetric determination of total and trivalent iron in red wines, B., 729. Role of protective colloids in the stability of wines, B., 842. Solubility of copper compounds in fungicides, B., 884. Mechanism of action of copper compounds on [vine] mildew, B., 1074.
- Ribet, G. See De Paolini, I.
- Ricardo, H. R., effecting combustion in internal-combustion engines of the liquid fuel injection compression ignition type, (P.), B., 100.
- Ricchiuti, G. See Cantarow, A.
- Rice, B. See Orr, T. G.
- Rice, Edgar W., and Boleracki, P., determination of moisture in syrups and viscous materials [e.g., honey], B., 246.
- Rice, Edward W., and Santa Cruz Portland Cement Co., Portland cement, (P.), B., 508.
- Rice, F. O., thermal decomposition of organic compounds from the viewpoint of free radicals. III. Calculation of the products formed from paraffin hydrocarbons, A., 930. Decomposition of organic compounds into free radicals, A., 1270.
- and Dooley, M. D., thermal decomposition of organic compounds from the viewpoint of free radicals. IV. Dehydrogenation of paraffin hydrocarbons and strength of the C-C linking, A., 1269.
- and Evering, B. L., formation of free radicals from aliphatic azo-compounds, A., 1149.
- and Glasebrook, A. L., free methylene radical, A., 1269.
- and Röhm & Haas Co., acetylation process, (P.), B., 955.
- Rice, J. A., and Bubblestone Co., foamy body to be used in making cellular concrete, (P.), B., 270.
- Rice, O. See Black, A. P.
- Rice, O. K., energy exchange in unimolecular gas reactions, A., 129.  
See also Gibson, G. E.
- Rice, P. E. See Naugatuck Chem. Co.
- Ricevuto, A., formation of citric acid in the lemon, A., 1342.
- Rich, C. E., relationship between viscosity, total protein content, ash content, and baking strength of experimentally and commercially milled flours from Western Canadian hard red spring wheat, B., 167. Relationship between ash content and peptisability of wheat-flour proteins of Western Canadian hard red spring wheat, B., 649.
- Rich, F. V. See Pacsu, E.
- Rich, M. N. See Westinghouse Lamp Co.
- Richard, B., and Geigy Soc. Anon., J. R., monoazo-dyes [for wool and silk], (P.), B., 222.
- Richards, A. N., Bordley, J., and Walker, A. M., composition of glomerular urine. VII. Manipulative technique of capillary tube colorimetry, A., 849.  
See also Bordley, J., and Westfall, B. B.
- Richards, B. H. F., Haroldson, A. H., and Continental Diamond Fibre Co., flexible treated [electrical insulating] material, (P.), B., 1054.
- Richards, C. E. See Barralet, F. O.
- Richards, C. W., and McFail, L. W., determination of foaming tendency of casein, B., 743.
- Richards, D. A., electron diffraction patterns from platinised asbestos, A., 1222.
- Richards, D. W., jun. See Atchley, D. W.
- Richards, E. T., refining of nickel, B., 151.
- Richards, H. J., Hinton, W. E., and Lasalco, Inc., electroplating machine, (P.), B., 154.
- Richards, T. E., making a printing plate, (P.), B., 813.
- Richards, W. F., and S. M. A. Corp., spray dryer, (P.), B., 528. Milk-evaporating means, (P.), B., 570.
- Richards, W. T., and Harris, P. M., light scattering in under-cooled benzophenone, A., 7.
- and Reid, J. A., dispersion of sound in several gases, and its relation to the frequency of molecular collisions, A., 15. Dispersion of sound in nitrogen tetroxide and its interpretation in terms of dissociation rate, A., 217.

- Richardson, A. E. V., mineral content of pastures, B., 37. Investigations on irrigated pastures. I. Yield and botanical composition of an irrigated permanent pasture under various systems of pasture management, B., 323.
- and Gurney, H. C., effect of nitrogenous fertilisers on growth and yield of wheat and barley in South Australia. I. Wheat grown after fallow and after stubble, B., 1072.
- Richardson, A. S. See Ferguson, R. H.
- Richardson, C. H., and Glover, L. H., effects of "inert" and toxic substances on the twelve-spotted cucumber beetle (*Diabrotica duodecim-punctata*, Fab.), B., 245.
- and Haas, L. E., evaluation of stomach poisons for grasshopper baits, B., 165.
- and Thurber, G. A., relative toxicity of poisons for grasshopper baits, B., 646.
- See also Pearson, A. M., and Shull, W. E.
- Richardson, D. H., and Smith, F. W., reduction and hydrolysis of *o*-, *m*-, and *p*-nitrophenctoles, A., 155.
- See also Armstrong, D. E.
- Richardson, E. G., flow of liquid suspensions, A., 368. Mechanics of gelation, A., 462. Viscosity of emulsions, A., 1115. Cohesion and viscosity of clays, B., 559.
- Richardson, Edwin M. See Jenkins, S. S.
- Richardson, Ellis M., concentration of dispersions or emulsions [of rubber latex], (P.), B., 677.
- Richardson, G. M., autoxidation of dialuric acid, A., 284. Electrometric titration of *dl*-2-thiohistidine, A., 1015.
- Richardson, H. B. See Loebel, R. O.
- Richardson, H. H., insecticidal studies of Midcontinent distillates as base for pyrethrum extracts; household sprays, B., 119. Extractive efficiency of kerosene on pyrethrum powders of varying fineness, B., 519.
- and Nelson, R. H., field control of the gladiolus thrips (*Taeniothrips gladioli*, M. and S.), B., 934.
- See also Smith, Floyd F.
- Richardson, H. M., plastics as engineering materials, B., 115.
- Richardson, J. E., and Mayfield, H. L., availability of vitamins in plant tissues, A., 195. Effect of storage on palatability and vitamin content of rutabagas, B., 1082.
- See also Langley, D. D.
- Richardson, L. R. See Hogan, A. G.
- Richardson, O. W., and Davidson, P. M., spectrum of  $H_2$ ; bands ending on  $2p^3II$  levels. II. and III., A., 547, 1219. Spectrum of  $H_2$ ; the  $3d^1A$  and  $4d^1$  levels, A., 1219.
- Richardson, R., divided titration pipette-stirring rod, A., 926.
- and Maass, O., sorption of sodium hydroxide on cellulose and wood, A., 121.
- See also Maass, O.
- Richardson, Ralph S., purification of nitrogen-hydrogen mixtures for ammonia synthesis, (P.), B., 827.
- Richardson, Robert S., hydrocarbon bands in the solar spectrum, A., 1097.
- Richardson, R. W. See Du Pont de Nemours & Co., E. I.
- Richardson, T. N., and Bailey, K. C., supersaturation of liquids with gases, A., 678.
- Richardson, W. D. See Newton, R. C.
- Richardson Co., fibrous compositions containing resinous substances, (P.), B., 102. Fibrous compositions containing filler and binder substances, (P.), B., 302.
- See also Cain, J. R., Fisher, H. C., Stevenson, E. P., Yates, S. W., and Yungblut, G.
- Richet, C., aerofilter for purifying air, B., 574.
- Richfield Oil Co. See Black, J. C.
- Richfield Oil Co. of California. See Chappell, M. L., Dowlen, T. H., Lachman, A., and Rial, W. D.
- Riehman, C. T., Kuhn, W. C., and Smith, P. J., motor fuel, (P.), B., 821.
- Riehman, E. See Levine, V. E.
- Richmyer, F. K., are the wave-lengths of X-ray satellites affected by chemical combination? A., 201.
- Richou, R., absorption of antitoxins through the skin, A., 1084. Skin permeability and anaphylaxis, A., 1084.
- Richter, A. A., and Gretschnikov, A. I., physiological processes causing the loss of winter cereals under the ice crust, A., 103.
- Richter, A. F., [sulphite-pulp] digester lining developments, B., 299.
- Richter, B. See Wittemeier, H.
- Richter, C. F., and Stebbins Eng. & Manuf. Co., digester [for cooking fibrous materials], (P.), B., 502.
- Richter, D. See Hope, E.
- Richter, E., action of salt solutions on wood cellulose, B., 342. Strength evaluation of pulp for paper-making, B., 1050.
- Richter, E. F., dependence of electron-ray concentration on the type of gas, A., 658. Polarisation phenomena in the stepwise excitation of mercury fluorescence, A., 880.
- Richter, G. A., Arsdell, W. B. van, Hill, R. B., and Brown Co., rubber-impregnated products, (P.), B., 1070.
- and Brown Co., chemical pulping process, (P.), B., 14. Pulp of high  $\alpha$ -cellulose content, (P.), B., 14. Chemical wood pulp, (P.), B., 58. Paper-making composition, (P.), B., 58. Regeneration of spent alkaline liquor [from decomposition of cellulosic material] to fresh acid cooking liquor, (P.), B., 427. Effecting refining reactions on cellulosic pulps, (P.), B., 460. Cyclic process of fibre liberation, (P.), B., 503. Liberation of pulp from raw cellulosic materials, (P.), B., 503. Liberation of chemical fibre, (P.), B., 544. Low-viscosity cellulose fibre, (P.), B., 544. Chemical modification of [removal of pentosans and non-cellulose constituents from] cellulose fibre, (P.), B., 665. Acid process of fibre liberation, (P.), B., 825. Processing of cellulose fibre; pulp-refining process, (P.), B., 825. Pulp refining and bleaching process; producing white wood pulp for high-grade paper manufacture, (P.), B., 825. Paper manufacture, (P.), B., 826. Composition for and method of papermaking, (P.), B., 826. Artificial leather, (P.), B., 826. Production of high-grade chemical pulps; alkaline fibre liberation, (P.), B., 861. Multi-stage pulping of raw cellulosic material, (P.), B., 861. Cyclic production of sulphite pulp, (P.), B., 1004. Chemical pulping and refining process, (P.), B., 1004.
- Richter, G. A., Chase, H. A., and Brown Co., felted fibrous sheet material of high absorptivity, (P.), B., 862. Bituminised fibrous webs, (P.), B., 862.
- Ebie, E., and Brown Co., treatment of pulp, (P.), B., 1004.
- Scherer, P. C., jun., and Brown Co., stabilisation of cellulose xanthate, (P.), B., 664.
- Schur, M. O., and Brown Co., chemically treating and bleaching cellulose pulp, (P.), B., 264. Fibro articles containing regenerated cellulose, (P.), B., 265. Beating process [for cellulose fibre], (P.), B., 460.
- Schur, M. O., Rasch, R. H., and Brown Co., production of material for conversion into cellulose derivatives, (P.), B., 102. Conditioning a tissue of cellulose fibre for conversion into cellulose derivatives, (P.), B., 460.
- Richter, G. H. See Taggart, M. S.
- Richter, H. (Berlin), colorimeter for determination of phosphate, B., 104. Determination and calculation of the viscosity of gas mixtures, B., 128. Role of iron in alumina fused cement, B., 229.
- Richter, Hans, boiler corrosion and its prevention, B., 415.
- Richter, K., and Damm, H., application of the micropolychromator to micro-determination of m.p., A., 924.
- and Ferber, K. E., effect of ensilaged steamed-potatoes on production of milk and milk fat by cows. II., B., 569.
- Ferber, K. E., Moldrickx, P., and Chrzaszcz, K., effect of washing on the composition and feeding value of sugar-beet leaf silage, B., 410.
- Richter, Kurt, metallic films and surfaces, B., 392.
- See also Bosse, Y. von.
- Richter, M. See Stamm, H.
- Richter, W. F., and Chem. Holding Corp., treatment of cellulose material, (P.), B., 460. Viscose, (P.), B., 664. [Permanently] lustreless rayon, (P.), B., 1005.
- Richtmyer, F. K., and Hirsh, F. R., jun., device for reducing grain effects in micro-photometer records, A., 800.
- and Kaufman, S., X-ray satellites of high atomic number elements, A., 1222.
- See also Hirsh, F. R., jun.
- Rick, A. W., bitumen paints and their importance as protective agents, B., 198.
- Ricketts, H. T., function of the liver; modified glucose tolerance test, A., 971.
- Riddell, G. L., use of rubber in the printing industry, B., 317.
- Riddell, W. H. See Whitnah, C. H.
- Riddell Co., W. A. See Lang, F.
- Riddle, F. H., effect of preparation and calcination treatment on properties of kaolin-alumina mixtures  $Al_2O_3$ ,  $SiO_2$ , B., 19.
- See also Jeffery, J. A.
- Riddle, R. N., and Riddle Process Co., decolorising carbon, etc., (P.), B., 693.
- Riddle Process Co. See Riddle, R. N.
- Rideal, E. K., examination of film structures by electrical and optical methods, A., 21. Unimolecular layers of proteins, A., 21.
- See also Feachem, C. G. P., Hughes, A. H., Schulman, J. H., and Whalley, H. K.

- Ridenour, G. M., bulking in a surface-aeration activated-sludge plant, B., 414.  
Effect of a small impounding reservoir on stream pollution, B., 526.
- Rider, T. H., piperidinopropanediol diphenylurethane hydrochloride—a new local anesthetic, A., 420. Glutamic acid in treatment of experimental anemia, A., 525. Detoxification with special reference to sodium ricinoleate, I., A., 537.  
See also Scott, E. W.
- Ridge, B. P., and Bowden, H., tensile strength and fluidity in cuprammonium hydroxide solution of chemically modified rayon and cotton yarns. I. Oxidation by hypochlorite solutions, B., 223.
- Corner, M., and Cliff, H. S., chemical analysis of rayons. II. Micro-determination of metals in commercial rayon yarns, B., 588.  
and Turner, K., analysis of cotton and viscose rayon mixtures, B., 380.
- Ridgway, R. R., Ballard, A. H., and Bailey, B. L., hardness values for electrochemical products, B., 752.  
and Norton Co., electrically fusing non-conducting materials, (P.), B., 926.  
See also Bailey, B. L.
- Ridout, J. H. See Solandt, O. M.
- Ridson, J., jun. See Riegel, E. R.
- Riehl, R. See Kremann, R.
- Riebsomer, J. L., and Johnson, J. R., lycopodiumoleic acid, A., 1034.
- Rieche, A., determination of mol. wt. by the micro-ebullioscopic method, A., 139.  
and Meister, R., alkyl peroxides. X. Peroxides of formaldehyde; pertri-oxyethylene and tetraoxyethylene diperoxide, A., 592.  
See also Pummerer, R.
- Rieche, H., automatic registration of small changes of temperature over a wide scale, A., 246.
- Riecke, E., thiocyanate content of gastric juice in children, A., 968.
- Riede, W. See Rewald, B.
- Riedel, R. See Kähler, H.
- Riedel-E. De Haën Akt.-Ges., J. D., production of 8-[hydroxy]-derivatives of quinoline, (P.), B., 140.
- Rieder, W., and Neumann, A., colorimetric examination of sweat, A., 179.
- Riedl, E., spectrum analysis. XII. Detection of antimony, arsenic, and tellurium, A., 134.  
See also Gerlach, Walther.
- Riedl, J. See Brunner, K.
- Riedmair, J. See Fischer, Hans.
- Riegel, C. See Johnston, C. G., and Wolf, W. A.
- Riegel, E. R., and Ridson, J., jun., behaviour of the barium sulphate micelle towards Congo-red, A., 1113.
- Riehl, N., temperature dependence of scintillation processes and the destruction of phosphors, A., 999.  
See also Käding, H., and Wolf, P. M.
- Riehm, H., factors determining the reaction of the soil. IV. Silicate buffering of arable soil, B., 516.
- Riese, W. See Klempt, W.
- Riesenfeld, E. H., chromium pentoxide, A., 134.  
and Sass, H., anode process in the lead accumulator, A., 472.
- Riesser, O., composition of commercial compound antineuralgics, B., 332.  
and Hansen, Anneliese, chemical analysis of muscles of marine invertebrates, A., 967. Determination of creatine-phosphoric acid, A., 1094.  
and Yamada, K., influence of sympathetic poisons and narcotics on muscle metabolism, A., 632.
- Riesz, E., introduction of amino-groups into cotton cellulose, A., 1038.
- Rietti, C. T., ketosis in the pancreatic and phloridzin diabetes of hypophysectomised dogs, A., 431.  
See also Houssay, B. A.
- Rigamonti, R., gravimetric determination of formic acid in presence of higher fatty acids, A., 172.
- Rigby, J. H., effect of varying the ratio of soda ash to sodium silicate in alkaline earthenware slips, B., 786.
- Riggs, A. E. C. See Irving, L.
- Righellato, E. C., and Davies, C. W., conductometric analysis. I. Acids and acid mixtures. II. Tan liquors and leather analysis, A., 242; B., 277.
- Rightway Corporation. See Webb, A. B.
- Rigor, T. V. See Petersen, W. E.
- Rijst, M. P. J. van der. See Arons, P.
- Rile, J. H., and Hercules Powder Co., [nitrocellulose] floor covering, (P.), B., 757.
- Riley, C. L., and Industrial Associates, Inc., casein, (P.), B., 651.
- Riley, G. W., and Scott & Son, London, Ltd., G., concentration of liquids, (P.), B., 495.
- Riley, H., control of plating solutions, B., 591.
- Riley, H. L., separation and determination of copper and nickel by salicylaldehyde, A., 923.  
See also Astin, S., Emeléus, H. J., Ives, D. J. G., and Newman, A. C. C.
- Riley, M. K. See Shull, W. E.
- Riley, R. H. J. See Brit. Celanese.
- Rimele, E. See Gen. Aniline Works.
- Rimington, C., Bekker, J. G., and Kellerman, J., cystine and wool production, A., 1075.
- Rimskaja, M. M. See Lipézt, M. M.
- Rinck, A., calculation of lactose and sucrose from polarisation data, B., 886.  
and Müller, H., determination of lactose and sucrose in milk chocolate, B., 886.
- Rinck, E., equilibria in the melted state between alkali and alkaline-earth metals and their salts, A., 228. Equilibrium diagrams of binary alloys of alkali metals: Na-K alloys, A., 771.
- Ring, G. C., and Hampel, C. W., effects of adrenal medulla and thyroid on the respiratory metabolism of pancreatic diabetes, A., 1322.
- Ringbom, A., determination of perborate in detergent media, B., 364.
- Rinkes, I. J., thiophen derivatives. I and II, A., 73, 834. Preparation of 5-methylfurfuraldehyde, A., 613.
- Rinman, E. L., relieving alkaline waste liquors from the soda- or sulphate-pulp manufacture, of silica, (P.), B., 18, 703.
- Rinne, F., weakening of fine-structural cohesion by water and aqueous solutions, A., 21. Optical anomalies and fine structure; double refraction of paracrystalline (especially organic), colloidal materials; shrinkage effects in albumin, A., 349. Paracrystallinity, A., 1108.
- Rintelen, K. See Oelkers, H. A.
- Rintelen, P. See Balks, R., and Bömer, A.
- Rintelman, W. L. See Du Pont de Nemours & Co., E. I.
- Ripan, R., separation of group III metals, A., 42. Potentiometric determination of selenocyanates, A., 1261. Argentometric determination of selenocyanates with Fajans' adsorption indicators, A., 1261.
- Ripke, O. See I. G. Farbenind.
- Ripley, P. C., and Kester Solder Co., ingots, (P.), B., 713.
- Rippel, A., Behr, A., and Meyer, R., effect of potassium on the higher plants, B., 1072.  
and Meyer, R., yield law of plants, B., 322.  
and Stoess, U., is calcium a necessary element for micro-organisms? A., 97.
- Rippel, K., relationship between nitrogen assimilation and pH of fungi, A., 758. Action of fungicides on *Cladosporium fulvum*, Cooke, and possibility of chemotherapeutic control of the fungus, B., 37.
- Ripper, E. See Pauli, W.
- Ripper, K., manufacture of artificial resins, moulding compositions, and artificial masses by condensation of dicyanodiamide with formaldehyde, (P.), B., 31.
- Ripperton, J. C. See Edwards, D. S.
- Rishikov, D. V., Lake Medveshje, A., 1028.
- Risi, A., biological action of tyrosino, A., 528.
- Risi, J., and Bois, E., aromatic constituent of products from sugar maple [*Acer saccharum*], A., 1215.
- Rising, M. M., and Pierce, A., nitration of phenobarbital [5-phenyl-5-ethylbarbituric acid], A., 1171.
- Shroyer, J. H., and Stieglitz, J., mechanism of the narcosis induced by hypnotics. I. Synthesis of coloured derivatives of phenobarbital, A., 958.  
and Yang, P. S., biuret reaction. III. Biuret reaction of amino-acid amides, A., 382.
- Rising, W. H., and Corning Glass Works, cadmium-containing glass and tubing made therefrom, (P.), B., 548.
- Riskin, J. See Porai-Koschitz, A.
- Risse, E. See Auwers, K. von.
- Risseghem, (Mlle.) H. von, stereoisomeric methylethylenes; dehydration of 8-methylpentan-3-ol by alumina; 8-methyl-2 $\beta$ -pentene; 8-methyl-4 $\alpha$ -pentene and its derivatives, A., 804.
- Gredy, (Mlle.) B., and Piaux, L., [Raman effect and] ethylenic linking: hexenes, A., 553.
- Rist, C. E. See Clark, K. G.
- Risvold, J. C. See Hassell, F.
- Ritchie, A., and Ludlam, E. B., oxidation of sulphur at low pressures, A., 32.
- Ritchie, C. F., Gale, W. A., and Amer. Potash & Chem. Corp., process of evaporative cooling, (P.), B., 576.  
See also Gale, W. A.
- Ritchie, E. B. See Mishkis, M.
- Ritchie, M., and Norris, R. G. W., photosynthesis of hydrogen chloride. I. New experimental method; inhibiting effect of hydrogen chloride. II. "Oxygen-free" mixtures, A., 576.  
See also Norris, R. G. W.
- Ritchie, R. E., and Chambers Bros. Co., grinding muller roller, (P.), B., 129.
- Ritchie, W. M., treating and filling cavities in trees, (P.), B., 840.
- Ritman, E. L., real meaning of  $\beta$ - and  $\gamma$ -cellulose, B., 1002.

- Ritschl, R., hyperfine structure of arc lines and the nuclear moment of copper, A., 2. Hyperfine structure in aluminium, A., 199.
- Ritson, F. See Gas Chambers & Coke Ovens, Ltd.
- Ritter, G. J., Mitchell, R. L., and Seborg, R. M., factors influencing the conversion of cellulosic material into sugar, A., 938. Potential reducing numbers of lignin and of carbohydrates from wood, B., 12.
- Ritter, J. J., synthesis of camphor, A., 1055.
- Rittinger, F. R., and Dembo, L. H., soyabean (vegetable) milk in infant feeding, A., 975.
- Rittler, G., treatment of hard waters, (P.), B., 1038.
- Rius, A., and Arnal, V., electrode potential of chlorine, and its applications in analysis, A., 1022.
- and De Bustinza, F., analysis of *Cicer arietinum*, var. *album* and *fuscum*, A., 104.
- Rius y Miró, A. See under Rius, A.
- Rivers, A. B. See Vanzant, F. R.
- Riverside Cement Co., forming massive cementitious bodies, (P.), B., 966.
- See also Steinour, H. H.
- Rivière, C. See Clément, L.
- Rixon, F. W., diagram of the periodic table, A., 442.
- Roach, W. A., distribution of molybdenum, A., 328.
- Roark, R. C., rotenone [insecticide], B., 647. Chemical relationship between insecticidal species of fabaceous plants, B., 934.
- Robb, A. M., theory of film lubrication, B., 655.
- Robbins, P. J. See Iddles, H. A.
- Robbins, W. R. See Nightingale, G. T.
- Roberts, W. M. See Rosen, H. R.
- Roberg, M., assimilation of molecular nitrogen by *Aspergillus*, A., 96.
- Robert, J. See Cuny, L.
- Roberti, G., poisoning of a nickel catalyst by thiophen, A., 471.
- Roberts, A. L., and Cobb, J. W., behaviour of refractory materials under torsion at different temperatures, B., 228.
- Roberts, C. H. M., theory of emulsions, A., 123.
- Roberts, E. J. See Stewart, R. F.
- Roberts, E. N., and Standard Oil Co., lubricating oils, (P.), B., 499.
- Roberts, G., and Kinney, E. J., soils and fertiliser experiments, Experiment Station Farm, Lexington, B., 679.
- Roberts, G. L. See Kearsley, E. P. W.
- Roberts, J., free-burning coke for domestic purposes, B., 771.
- Roberts, J. A. F. See Fraser, A. H. H.
- Roberts, R. E., and Soper, F. A., effect of solvent on reaction velocity. IV. Rate and critical increments of chlorination reactions, A., 577.
- Roberts, R. P. See Brit. Celanese.
- Roberts, R. W., and Wallace, L. A., magnetic rotatory dispersion and absorption of the cerous ion in solution, A., 114.
- Robertshaw, G. F. See Burton, D.
- Robertson, A., synthesis of rotenone and its derivatives. III. The dehydro-rotenone nucleus. IV. Dehydrodihydro-rotenone and tephrosic acids, A., 712, 1169.
- and Sandrock, W. F., constituents of *Filix mas*. I. Aspidinol, A., 954.
- Robertson, A., and Waters, R. B., glucosides. IX. Methyl salicylate vicianoside (? violutoside), A., 54. Podophyllotoxin, A., 277. Natural and synthetic indican, A., 285.
- See also Canter, F. W., Curd, F. H., Jones, E. T., and Müller, Alexander.
- Robertson, A. B. See Murray, I.
- Robertson, D. P. See Saywell, L. G.
- Robertson, D. W., vehicle effects in paints formulated with titanium pigments, B., 1018.
- See also Stewart, Laura C.
- Robertson, F. R., and Campbell, J. G., increase of free fatty acid in cottonseed, B., 876.
- Robertson, G. J., simultaneous preparation of 2:3:4- and 2:3:6-trimethylglucose, A., 937.
- See also Mathers, D. S.
- Robertson, H. F. See Davidson, J. G.
- Robertson, H. M., [tunnel] kiln, (P.), B., 589.
- See also Hoermann, F. E.
- Robertson, James, solution of problems in heat conduction by the method of wave-trains, B., 447.
- Robertson, Jean, and Clark, A. J., uptake of ethyl alcohol by the isolated tortoise's heart, A., 633.
- Robertson, Julian, and North Carolina Finishing Co., [unshrinkable] finishing of fabric, (P.), B., 504.
- Robertson, J. A., and Young, J., volumetric determination of free sulphur in rubber, B., 930.
- Robertson, J. K., spectra of high-frequency discharges. I. Comparison of damped with undamped electrodeless excitation, A., 2. Air afterglow and active nitrogen, A., 5.
- and Clapp, C. W., removal of metallic deposits by high-frequency currents, B., 971.
- Robertson, J. M., crystal structure of anthracene, A., 216. Crystal structure of anthracene; quantitative X-ray investigation, A., 558. X-Ray analysis of the crystal structure of durenene, A., 1108.
- Robertson, M. E., "red heat" [in salted raw hides]—its cause and prevention, B., 161.
- Robertson, P. W. See Sykes, P. H.
- Robertson, (Sir) R., danger of explosions, A., 487.
- Robertson, T. B., Dawbarn, M. C., Walters, J. W., and Wilson, J. D. O., growth and longevity of the white mouse. II. Influence of vegetable nucleic acid and thyroid on growth and longevity, A., 1325.
- Marston, H. R., Dawbarn, M. C., Walters, J. W., and Wilson, J. D. O., effects of moderate overdose of vitamin-D and of -A+D on the growth rate and longevity of the white mouse. II., A., 645.
- Robertson Co., H. H. See Young, J. H.
- Robeson Process Co. See Wallace, F. J.
- Robey, R. F., Muencke blower, A., 481.
- Robežnieks, J., iodometric determination of lactose in milk and milk products, B., 649.
- Robiette, A. G. E. See Electric Resistance Furnace Co.
- Robin, P., detection of caesium, rubidium, and thallium, A., 1262.
- Robinet, P. See Cornubert, R.
- Robinov, M., and Zotov, P., utilisation of proteins of depilatory liquors for sizing paper, B., 859.
- Robinovitch, L. G. See Mindeleff, C.
- Robins, E. D. See Worley, F. P.
- Robinson, A., factors leading to greater production from a steel furnace, B., 918.
- Robinson, A. (California). See Chaikoff, I. L.
- Robinson, A. D. See Herner, M. C.
- Robinson, A. L., and Amdur, I., temperature coefficient of the recombination of hydrogen atoms, A., 788.
- See also Amdur, I.
- Robinson, (Mrs.) A. M., and Robinson, R., synthetical experiments on the nature of betanin and related nitrogenous anthocyanins, A., 281.
- Robinson, A. P., and Filtrol Co. of California, continuous-operation apparatus for purifying liquids, (P.), B., 288.
- Robinson, B. B., physiological factors influencing the production of flax fibre cells, A., 989.
- See also Snyder, R. M.
- Robinson, B. W., moving film cameras in X-ray analysis, A., 689. Integrating photometer for X-ray crystal analysis, A., 1026.
- Robinson, C. S. See Huffman, C. F.
- Robinson, F. A., Suthers, A. J., and Walker, T. K., antiseptics related to indan-1:3-dione, A., 506.
- Robinson, F. E., and Nesbitt, C. T., machinability of steel as indicated by its macrostructure, B., 64.
- Robinson, F. J., and Ayres, G. H., influence of temperature on properties of zirconium oxide sols, A., 777.
- Robinson, (Mrs.) G. M., and Robinson, R., anthocyanins. III. Distribution of leucoanthocyanins, A., 544.
- Robinson, G. W., significance of composition of the clay fraction in profile studies, A., 254.
- Robinson, H., and Wheeler, R. V., explosions of methane and air: propagation through a restricted tube, A., 909.
- Robinson, H. G. B. See Howell, O. R.
- Robinson, H. V. W., and Lewis, D. T., kinetics of the decomposition of the dichlorosuccinic acids, A., 1125.
- Robinson, J., and Standard Oil Co., lubricating oil, (P.), B., 295.
- Robinson, J. D. See Bruson, H. A.
- Robinson, J. G., simple method for determination of degree of uniformity of cure in various parts of open-steam vulcanising pans, B., 480.
- Robinson, P. L., and Scott, W. E., system phosphorus-selenium, A., 219.
- See also Aynsley, E. E., Briscoe, H. V. A., and Pearson, T. G.
- Robinson, R., relation of electromeric effects and relative polarisabilities of halogens, A., 1158. Electrochemical theory of mechanism of organic reactions, A., 1269. Natural colouring matters and their analogues, A., 1302.
- and León, A., synthesis of anthocyanins; synthesis of cyanenin chloride and an indication of the synthesis of cyanin chloride, A., 72.
- León, A., and Sanroma, D., synthesis of malvenin chloride, A., 72.
- and Shah, R. C., anthoxanthins. XV. Experiments on the synthesis of garcinin, A., 832.
- and Sugawara, S., preliminary synthetic experiments in the morphine group. V. Completion of the synthesis of a laudanosine dimethyl ether related to sinomenine, A., 518.

- Robinson, R. See also Baker, W., Barger, G., Blount, B. K., Charles, J. H. V., Charlesworth, E. H., Chavan, J. J., Hill, P., Imperial Chem. Industries, King, F. E., Raistrick, H., Ramage, G. R., Robinson, (Mrs.) A. M., Robinson, (Mrs.) G. M., and Young, P. C.
- Robinson, R. A. See Britton, H. T. S.
- Robinson, R. H., arsenical spray residue on cherries, B., 86. Water-soluble arsenic in oil emulsion-lead arsenate combination sprays, B., 119. Removal of poisonous spray residues on fruit, B., 646. Removal of spray residues from fruit and vegetables, (P.), B., 890.
- and United States, removal of natural oils, wax, and spray residues from fruits, (P.), B., 764.
- Robinson, R. J. See Wirth, H. E.
- Robinson, V. O. See Robinson & Sons, Ltd.
- Robinson, W. E. See Standard Oil Development Co.
- Robinson, W. K. See Stillwell, C. W.
- Robinson, W. O., determination of selenium in wheat and soils, B., 936.
- See also Nelson, E. M.
- Robinson Bros., Ltd., and Parkes, D. W., electrolytic manufacture of piperidine, (P.), B., 778.
- Parkes, D. W., and Mitchell, C. D., pickling or cleaning of iron and steel and production of substances suitable for use therein, (P.), B., 873.
- and Rawstron, F. C., piperidine pentamethylenedithiocarbamate; [vulcanisation accelerator], (P.), B., 297.
- Robinson, V. O., and Blow, J. J., construction of [textile] material suitable as a filter medium [for milk, etc.], (P.), B., 658.
- Robison, R., hexose monophosphoric esters: mannose monophosphate, A., 316.
- See also Fell, H. B., and MacLeod, M.
- Roblin, R. O., jun. See Bogert, M. T.
- Robrieux, G. See Aumaréchal, J.
- Robscheit-Robbins, F. S., diet and its effect on blood formation, A., 1064.
- and Whipple, G. H., hæmoglobin production factors in the human liver. II. Liver degeneration, cancer, cirrhosis, and hepatic insufficiency, A., 970.
- See also Whipple, G. H.
- Robson, J. M., and Taylor, H., factors influencing the functional development of the male gonad, A., 986.
- Robson, J. T., rapid firing of semi-porcelain, B., 705. Difficulties in firing decorated whiteware, B., 867.
- Rocard, Y., quantum mechanics [applied to] the formation of negative ions, A., 4. Critical opalescence, A., 113. Theory of fluctuations and critical opalescence, A., 553. Orientations of molecules of permanent moment in an alternating field: application to dispersion of the dielectric constant and the Kerr effect, A., 765. Hydrodynamics and kinetic theory of gases: theory of surface tension, A., 895.
- See also Goldstein, L.
- Rocha, H. J. See Tammann, G.
- Rochaix, A., Sédallian, P., and Clavel, (Mme.) J., paratyphoid-A-inhibiting properties of paratyphoid cultures, A., 190.
- Roche, (Mme.) A., loss of nitrogen during protein inanition, A., 975. Comparative chemical composition of normal animal muscle and after death due to total or protein inanition, A., 975.
- and Garcia, I., composition of the newborn rat during early development, A., 1185.
- and Roche, J., antimony electrode. V. Electrometric micro-determination of "formol"-titratable nitrogen with the antimony electrode, A., 363. Phosphatases and glycolysis in blood, A., 733.
- See also Adair, G. S., and Roche, J.
- Roche, J., specificity of mammalian phosphatases, A., 188. Physico-chemical properties of the crystallised hæmocyanin of the snail, A., 226. Globins. II. Hæmatins, globins, and the specificity of hæmatin pigments, A., 409.
- and Dubouloz, P., constitution of hæmocyanin and hæmoerythrin by means of their ultra-violet absorption spectra, A., 409. Physico-chemical properties of hæmocyanins, A., 1180.
- Roche, (Mme.) A., Adair, G. S., and Adair, (Mrs.) M. E., osmotic pressure of globin, A., 174.
- See also Adair, G. S., Fox, H. M., and Roche, (Mme.) A.
- Roche, P. See Canjolle, F.
- Rochlin, E., resistance of *Cruciferae* to club-root (*Plasmodiophora brassicae*, Wor.), B., 518.
- Rochlina, E. J., cell-nucleus of yeast and Feulgen's reaction, A., 1082.
- Rochow, E. G. See Dennis, L. M.
- Rocke, G. M. See Lamb, M. C.
- Rocker, G., Middleton, E. B., and Du Pont Viscoid Co., cellulose ester composition, (P.), B., 585.
- Rockland & Rockport Lime Corporation. See Hemeon, W. C. L.
- Rockwell, P. O., caustic silicate [from kaolin, for gas masks, etc.], (P.), B., 306.
- Rodda, J. L. See Fuller, M. L.
- Roddy, G. R., and Chain Belt Co., sewage-disposal system, (P.), B., 734.
- Roddy, W. T. See O'Flaherty, F.
- Rode, A. A., chemical composition of mechanical fractions of podzols and bog soils, A., 929.
- Rode, E. J., vapour pressure of the systems sodium sulphate-water and sodium carbonate-water, A., 1012.
- Rodebush, W. D., entropy of hydrogen, A., 218.
- Rodebush, W. H., and Henry, W. F., molecular beams of salt vapours, A., 1105.
- and Klingelhoefer, W. C., jun., atomic chlorine and its reaction with hydrogen, A., 232.
- and Wahl, M. H., new band in the water vapour discharge, A., 552.
- See also Haas, D.
- Rodel, W. See Schlöpfer, P.
- Rodewald, G., aqueous emulsions of bodies insoluble or difficultly soluble in water, (P.), B., 739.
- and Amber Size & Chem. Co., treatment of road-making materials, (P.), B., 149.
- Rodhe, O., determination of oxygen or combustible gas constituents by combustion, (P.), B., 774.
- Rodionov, V. M., and Fedorova, A. M., condensation of aromatic aldehydes and cyanoacetic acid, A., 711. 3:4-Dimethoxy-2-anhydrohydroxymercibenzoic acid; new synthesis of veratric acid, A., 729.
- and Viazkova, S. A., synthesis of  $\alpha$ -aryl- $\beta$ -uramidopropionic acids and their phenyl and naphthyl derivatives, A., 1307.
- Rodionova, E. A. See Horovitz-Vlassova, L. M.
- Rodman, C. J., Dunmire, R. P., and Buckeye Twist Drill Co., purifying [lubricating] oil, (P.), B., 378. Liquid treating apparatus, (P.), B., 817.
- Rodney Hunt Machine Co. See Jefferson, E. D.
- Rodolico, F., water content of tremolite of Monte Spinoza, Campiglia, A., 482.
- Rodowskas, E. L. See Ebert, M. S.
- Roe, A. F., stop-cock clamp, A., 927.
- Roe, J. H., and Cahoon, R. F., effect of galactose feeding on depauperated dogs, A., 628.
- Roebuck, J. R., and Osterberg, H., Joule-Thomson effect in helium, A., 218.
- Roederer, W. R., manufacture of cold asphalt or bitumen dispersions, more particularly for street constructional purposes, (P.), B., 775.
- Rödiger, W., testing the thread-drawing power as a technical method of investigation in the bitumen industry, B., 994.
- Rær, O., analysis of Portland cement, B., 467.
- Roegiers, M., dilution, viscosity, and lubricating power, B., 8.
- See also De Cavel.
- Röhl, H., elastic properties of single crystals of silver-gold alloys, A., 561. Elastic properties of the mixed crystal series Au-Cu and Au-Pd, and the alloys Cu<sub>3</sub>Pt, Cu<sub>3</sub>Pd, and CuPd, A., 1110.
- Röhler. See Metzner.
- Röhm & Haas Akt.-Ges., undressing [desizing] of textiles, (P.), B., 303. [Mouldable] artificial masses, (P.), B., 757. Unsplinterable composite articles such as safety glass, (P.), B., 829.
- Röhm & Haas Co., [synthetic] tanning materials, (P.), B., 482. Separation of [methyl]amines, (P.), B., 856. [Aliphatic] amines, (P.), B., 998.
- See also Bruson, H. A., Helwig, E. L., Lückhaus, E., Rice, F. O., and Somerville, I. C.
- Roehrich, C., lenticular screen films for colour photography, (P.), B., 173.
- Roehrich, O., degree of ripening of cotton, B., 298.
- Röhrig, H., precipitation-hardening [illustrated by] photomicrographs; micrography of aluminium alloys, B., 23. Akimov's theory of structure corrosion, B., 871.
- Roelen, O. See Fischer, Franz.
- Roelofsen, P. A. See Vonk, H. J.
- Römer, G. H. See Hertel, E.
- Röntgen, P., and Braun, H., solubility of gases in metals; behaviour of hydrogen and nitrogen with aluminium, B., 471.
- and Buchkremer, R., effect of metallic impurities on technical zinc electrolysis, B., 872.
- and Koch, W., influence of heavy metals on aluminium alloys. I. Solid solution formation in aluminium alloys, A., 1007.



- Röntgen, P., and Möller, F., hydrogen content of zinc, particularly of electrolytic zinc, B., 710.
- Roepke, M. H. See Henderson, V. E.
- Roepke, W. G., and Gen. Steel Castings Corp., mould or core wash, (P.), B., 634.
- Rordam, H. N. K., Walden inversion. IV. Conversion of bromosuccinic acid into malic acid. V. Conversion of aspartic acid into chloro- or bromo-succinic acid, A., 145.
- Roesch, K., and Clauberg, A., high-chromium cast iron as constructional material for chemical apparatus, B., 830.
- Roeser, W. F., and Dahl, A. I., conditions affecting the freezing temperature of silver, A., 769.
- Schofield, F. H., and Moser, H. A., international comparison of temperature scales between 660° and 1063°, A., 769.
- and Wensel, H. T., reference tables for platinum to platinum-rhodium thermocouples, A., 479.
- Roeske, A. See Wertyporoch, E.
- Roesner, G. See Girssewald, C. (Baron) von.
- Roessler, G. See Frankenburger, W.
- Roessler & Hasslacher Chemical Co., vulcanisation of rubber, (P.), B., 400.
- Stabilisation of chlorinated hydrocarbons, (P.), B., 956.
- and Ainslie, T. D., treatment of liquor employed in kiers, etc., (P.), B., 426.
- See also Ainslie, T. D., Bond, H. A., Cambron, A., Carlisle, P. J., Dangelmajer, C., Dobrovolny, F. J., Harding, E. A., Harris, C. R., Lacy, B. S., Macallum, A. D., Magill, P. La F., Pfeiffer, J., Ryschkevitch, E., Storch, H. H., Weston, P. E., and Zisch, W.
- Roets, G. C. S. See Du Toit, P. J.
- Roß, J., and Thurnherr, A., unsaturated fatty acids in experimental renal damage and oxygen deficiency, A., 1191.
- Roffe, S. See Josephson, K.
- Roffo, A. H., heliotropism of cholesterol in relation to skin cancer, A., 525. Photo-activity of chlorophyll, A., 543. Action of chlorophyll on blood-corpuscles normally and in cancer, A., 1070.
- Roga, B. See Swientoslowski, W.
- Rogatscheva, I. A. See Teletov, I. S.
- Roger, R., and McKay, W. B., dehydration of the  $\alpha$ -forms of *r*- and (+)-*o*- and -*m*-tolylhydrobenzoin, A., 611.
- Rogers, A., and Barrett Co., nitrocellulose lacquer, (P.), B., 720.
- Rogers, A. N. See Ewing, W. W.
- Rogers, B. A., magnetic properties of iron-cobalt-tungsten alloys, A., 772.
- Rogers, J., jun., automatic digester control [in sulphite-pulp manufacture], B., 458.
- Rogers, J. S., determination of insoluble matter [in tannin analysis]; A.L.C.A. [American Leather Chemists' Association] Committee report, 1933, B., 980.
- Removal of kidney grease stains from tanned sole leather, B., 1071.
- Rogers, P. H., [corrugated] paper board, (P.), B., 1006.
- Rogers, R. A. See Carnochan, R. K.
- Rogers, R. D. See Andrews, C. W.
- Rogers, R. R., and Conlon, J. F., chromium plating from ammonium-chromate-sulphate baths, B., 923.
- Rogers, T. H., Bussies, J. L., and Ward, P. T., gum formation in gasoline. I. Measurement of gum stability of gasoline, B., 532.
- Rogers, T. H., and Standard Oil Co., coloured wax and candle, (P.), B., 696.
- and Voorhees, V., gum formation in gasoline. II. Control by antioxidants, B., 532.
- Rogers, W. B., response of common field crops to various rates of application of calcium arsenate to several soil types, B., 883.
- Rogers Radio Tubes, Ltd. See Parker, H. W.
- Roggen, M. van, moulded products, (P.), B., 640.
- Roginski, S. Z., and Andréev, C. C., thermal decomposition of 2:4:6-trinitro-1:3:5-triazobenzene, A., 1017.
- and Rathmann, F. H., analysis of propylene and cyclopropane in mixtures containing both, A., 963.
- Rogmans, G. See Capron, P. C.
- Rogovin, S., and Schlachover, M., dispersion of cellulose during manufacture of viscose rayon. I. and II, B., 263, 343.
- Rogowski, F. See Freundlich, H.
- Rohde, G., determination of nutrient condition of soils by means of solubility of nutrient compounds in boiling water, B., 803.
- Rohde, H. W., and Schlitz Beverage Co., J., apparatus for sterilising food substances, (P.), B., 811.
- Rohde, L., and Schnetzler, K., measurement of after-glow of gas discharges, A., 247.
- Rohdewald, M. See Willstätter, R.
- Rohland, W. See Heymons, A.
- Rohm & Haas. See under Röhm & Haas.
- Rohmann, C., one-third basic aluminium acetate solution. I., A., 569. Analysis of aluminium acetate solution, B., 668.
- Rohn, W. See Gruber, H., Heraeus-Vacuumschmelze A.-G., and Hessebruch, W.
- Rohweder, M. See Sessous, G.
- Rohwer, C., evaporation from salt solutions and from oil-covered water surfaces, A., 775.
- Rojahn, C. A., pine-needle extracts, B., 44. [with Miller, J. A.], pharmaceutical analysis. XIV. Microchemical detection of the more important cations and anions, B., 938.
- and Wirth, E., biological determination of vitamin-A, -C, and -D in plant juices. II, A., 323.
- Róka, K., and Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler, acetone [from acetaldehyde], (P.), B., 217.
- Rokita, W., and Gfundner, E., protein [in malt and wort], B., 761.
- Rokitzkaya, A. I., and Vasiliev, A. P., microflora of fermenting beet juices from a Soviet beet-sugar factory, B., 983.
- Rolfe, A. C. See Hinshelwood, C. N.
- Roll, F., influence of nickel and silicon on the miscibility gap of the system Fe-Cu in the solid state (20°), A., 669.
- Rollason, E. C., metallurgical aspects of stainless-steel welding, B., 672.
- Rollefson, G. K., photochemistry of mixtures of chlorine, oxygen, and carbon monoxide, A., 237.
- and Montgomery, C. W., photochemical oxidation of carbonyl chloride, A., 237. Carbonyl chloride-sensitized oxidation of carbon monoxide, A., 1249.
- and Potts, J. C., effect of water on photosynthesis of hydrogen chloride, A., 358.
- See also Macdonald, R. T., and Montgomery, C. W.
- Roller, D., and Zenor, H., photo-electric emission from cadmium and mercury, A., 1229.
- Roller, P. S., colorimetric determination of aluminium with aurintricarboxylic acid, A., 799.
- Rollet, A. P., and Graff, W., system chlorine-phosphoryl chloride, A., 1012.
- and Ming, P. C., action of alkali borates on lead halides in aqueous solution, A., 795.
- Rollett, P. A. A. See Hackspill, L.
- Rollhaus, P. E., Stoddard, W. B., and Pilot Laboratory, Inc., bleaching methods [for flour, etc.], and agent, (P.), B., 170.
- Rollin. See Louis.
- Rolpf, W. M., mixing devices, (P.), B., 945.
- Romaine, E. van, Weiland, H. J., Powers, P. O., Palmer, R. C., and Newport Industries, Inc., liming of rosin, (P.), B., 837.
- Roman, W. See Bier, A., and Pietsch, E.
- Romanoff, A. L., method and apparatus for study of permeability of gases through the bird's egg-shell, A., 654.
- and Faber, H. A., effect of temperature on growth, fat and calcium metabolism, and mortality of the chick embryo during latter part of incubation, A., 855.
- Romanoff, W., and Thieme, C. O., recovery of smelter dust and oxide at a secondary-metals plant, B., 1012.
- Romanova, P. See Zilberman, G.
- Romeo, A., volumetric determination of barium, A., 244, 584.
- Romeo, F. See Marino, S.
- Romeo, G., rapid titration of reducing sugars, B., 887.
- Romer, A. See King, J. F.
- Romero, S. See Armangué, M.
- Romeyn, H., jun., indium and scandium in pegmatite, A., 1137.
- and Noyes, W. A., jun., photochemical studies. XV. Germane; decomposition of ammonia sensitised by mercury vapour, A., 35.
- Romieux, C. J., and Amer. Cyanamid Co., fumigating composition, (P.), B., 286.
- Christmann, L. J., and Amer. Cyanamid Co., rubber accelerator [of vulcanisation], (P.), B., 558.
- See also Novotny, E. E.
- Romijn, C. See Vonk, H. J.
- Romm, I. I. See Alimarin, I. P.
- Rommel, G. M., [young] Georgia pines for sulphite-pulp and newsprint [manufacture], B., 501.
- Rompe, R. See Jablonski, A.
- Romwalter, A., microvolumetric procedure, A., 1135.
- Rona, E., polonium, A., 1130.
- Rona, P., and Chain, E., configuration specificity of ester-synthesising enzymes, A., 534.
- and Fischgold, H., dilatometric investigation of the hydrolysis of proteins and their degradation products. I. Hydrolysis of dipeptides. II. Hydrolysis of ovalbumin and caseinogen, A., 730, 863. Dilatometric studies of the fission of proteins and dipeptides, A., 1063.
- Rondoni, P., and Pozzi, L., influence of reducing and oxidising treatment on the function of organ cathepsins, A., 981.
- Roninger, F. H., jun., microscopical examination of rubber and other solid technical products, B., 757.

- Ronkin, B. L., soda lakes of Egypt, A., 1028.  
See also Kurnakov, N. S.
- Rony, H. R., Mortimer, B., and Ivy, A. C., source of lipins in thoracic-duct lymph in fasting; endogenous lipin secretion and reabsorption in bowel, A., 1185.
- Roodenburg, N. M. See Nellensteyn, F. J.
- Rooker, W. A., Speas, V. E., and Speas Manufg. Co., jams, jellies, and kindred products, (P.), B., 283. Fruit product, (P.), B., 604.
- Rooksby, H. P. See Benjamin, M.
- Roome, R. M. B. See Ardagh, E. G. R.
- Roos, L. H., electric glow-discharge tube, (P.), B., 397.
- Root, F. B., and Chadeloid Chem. Co., wrinkle-finish coating [composition], (P.), B., 720. Rugous coating compositions, (P.), B., 1019.
- Root, W. C., equation relating density and concentration, A., 347.
- Root, W. S. See Amberson, W. R., and Haywood, C.
- Roquero, C. See Moles, E.
- Rordam, S., essential flour in cement, B., 229.
- Rosanov, S. N., and Filippova, A. G., rapid determination of calcium in phosphorite and limestone, A., 364.
- Rosbash, D. O. See Locke, A.
- Roschen, H. L. See King, A. E.
- Roseoe, M. H., incidence of dermatitis among rats deprived of vitamin-B<sub>2</sub>, A., 1339. Vitamin-B<sub>2</sub> content of various materials compared by their power to promote growth and cure dermatitis, A., 1339. Heat-stability of vitamin-B<sub>2</sub>. III. Rate of destruction of vitamin-B<sub>2</sub> in different materials at various reactions, A., 1339.  
See also Prunty, F. T. G.
- Roscoe, R., and Hutchings, P. J., rapid method of determining the crystal axes of single-crystal wires of metals, A., 1106.
- Rose, A., investigations in the Schumann region. II. Simple fluorite spectrograph and its application to absorption photographs, A., 552.
- Rose, B. A., measurements on contact p.d. between different faces of copper single crystals, A., 1229.  
See also Farnsworth, H. E.
- Rose, C. C., and Willard Storage Battery Co., purification of battery [sulphuric] acid, (P.), B., 964.
- Rose, C. L., pharmacological standardisation of parathormone, A., 1087.
- Rose, C. S. See Shohl, A. T.
- Rose, D. C., measurements of electrostatic properties of photographic films, B., 1085.
- Rose, D. H., and Lutz, J. M., injury to pears caused by paper liners impregnated with sodium silicate, B., 1032.
- Rose, E. R. See Parks, T. B.
- Rose, F. W., jun. See White, J. D.
- Rose, J. L., and Granath, L. P., relative abundance of the isotopes of lead in uranium-bearing minerals, A., 1099.
- Rose, M. S., and Kung, L., factors in food influencing hemoglobin regeneration. II. Liver in comparison with whole wheat and prepared bran, A., 81.
- Rose, W. C. See Meyer, C. E., and St. Julian, R. R.
- Rose, Downs & Thompson, Ltd., and Andrews, T., forming nickel oxide capable of reduction at a low temperature, (P.), B., 593.
- Rosen, B. See Wolff, H., and Zeidler, G.
- Rosén, G., and Cellulose Rosén Sec. Anon., preparing resinous wood for digestion by the bisulphite process, (P.), B., 301.
- Rosen, H. R., control of the blossom blight stage of fire-blight, B., 86.  
and Roberds, W. M., device for measuring intensity of illumination [in plant work], A., 1135.
- Rosen, N., and Ikehara, S., interaction between atoms with *s*-electrons, A., 206.  
and Morse, P. M., vibrations of polyatomic molecules, A., 6.
- Rosen, R. See Standard Oil Development Co.
- Rosenbaum, H., sugar metabolism of non-medullated mammalian nerves, A., 419.  
and Halter, K., formation of carbon dioxide and ammonia by non-medullated mammalian nerves, A., 419.
- Rosenbaum, M. G. See Langley, W. D.
- Rosenbaum, M. M. See Langley, W. D.
- Rosenbaum, R. R., motor fuel, (P.), B., 340. Lubricant, (P.), B., 456.
- Rosenbaum, S., and Chassel, A., amine theory of infantile toxæmia, A., 1192.
- Rosenberg, A., cleaning and polishing preparation for silver, gold, etc., (P.), B., 69, 154.
- Rosenberg, R. L., effective cross-sections of atoms compared with slow and fast electrons, A., 203.
- Rosenblatt, F., and Schleele, A., planar structure of platinum complexes, A., 342. Isomerism of the dichlorodiamminoplatinums, A., 476. Spatial structure of the platinum-tetrammine salts, A., 958.
- Rosenblum, C., efficiency of carbon dioxide as a radiochemical catalyst, A., 238. Effect of gaseous impurities on the radio-chemical combination of carbon monoxide and oxygen, A., 238.  
See also Kolthoff, I. M.
- Rosenblum, S., and Chamié, (Mlle.) C.,  $\alpha$ -radiation of radiothorium and its derivatives, A., 762.  
and Chevallier, P., direct measurement of intensities of fine structure of  $\alpha$ -particles, A., 659.  
and Dupouy, G., absolute velocities of principal groups of  $\alpha$ -particles, A., 659.  
See also Curie, (Mme.) Marie.
- Rosenbohm, A. See Bierich, R.
- Rosenbohm, E. See Jaeger, F. M.
- Rosenfeld, B. See Schwab, G. M.
- Rosenfeld, G., salivary glands and carbohydrate metabolism, A., 1335.
- Rosenfeld, L., quantum theoretical treatment of radiation problems, A., 996.
- Rosenfeld, P. See Hartmann, Friedrich, and Redlich, O.
- Rosenfelder, W. See Dieterle, H.
- Rosenhain, W., metallurgical progress, 1908—1933, B., 830.  
and Stott, V. H., energy absorbed in the cold-working of metals, B., 511.
- Rosenhall, G., dependence of lattice constant on hydrogen concentration in the palladium-hydrogen system, A., 1110.
- Rosenheim, A., and Gerb, L., optical isomerism of the complex salts of bivalent platinum and palladium, A., 497.
- Hakki, M., and Krause, O., permolybdates and pertungstates and structure of perchromates, A., 39.  
and Nernst, C., complex and internally complex compounds of quinquivalent molybdenum, A., 1130.
- Rosenheim, O., and King, H., ring system of sterols and bile acids. II. and III., A., 62, 497.  
See also Adam, N. K., and Callow, R. K.
- Rosenkranz, E., catalyst activity, A., 1018.
- Rosenkranz, S., suitability of infusions and tinctures of *Digitalis* as medicaments, A., 1197.
- Rosenmund, K. W., Buchwald, R., and Deligiannis, T., resorcinol ketones and *C*-alkylresorcinols, A., 953.
- Rosenstein, E., gypsum deposits of the Stopini-Salaspiis-Nävesala districts, A., 691.
- Rosenstein, L., recovery of hydrogen sulphide from petroleum refinery gases, B., 690. Refining [of fats, oils, waxes, resins], (P.), B., 1066.
- Bell, K. G., and Pacific Alkali Co., recovery of sodium carbonate from brine [containing sodium sulphate], (P.), B., 546.  
and Great Western Electro-Chem. Co., alkali xanthates, (P.), B., 588.  
and Hund, W. J., refining of vegetable and animal oils, fats, and waxes, (P.), B., 315. Refining of fats, fatty oils, waxes, etc., (P.), B., 555.
- Rosenthal, A. H., attempt to extend the helium spectrum by exciting both electrons, A., 991.
- Rosenthal, F., [effect of]  $p_H$  on degradation of uric acid, A., 33.
- Rosenthal, H., and Columbia Eng. & Management Corp., [solvent] extraction of [fats and] oils, (P.), B., 76. Gas, (P.), B., 180.
- Rosenthal, (Miss) J. E. See Salant, E. O.
- Rosenthal, K. See Peyer, W.
- Rosenthal, O., activation of fructose fermentation by Jensen sarcoma with pyruvic acid and various oxidising agents, A., 1070.  
See also Lasnitski, A.
- Rosenthal, W. See Bergmann, E.
- Rosenthaler, L., analysis. I.—III. Detection of blood with 2:7-diaminofluorene hydrochloride, A., 41, 732, 733. Microchemical contributions. VIII. and IX., A., 583, 1262. Identification of organic compounds. IX. X. XII. XIII. XIV. Gen-alkaloids [N-oxides of alkaloids], A., 173, 520, 844, 964, 1064. Bromoacidimetric processes. V., A., 920. Detection of phosphoric esters (particularly tolyl phosphate) in apiol, B., 171.
- Rosenzweig, I. See Fichter, F.
- Roser, H., and Baker Perkins, Ltd., apparatus for mixing, kneading, or disintegrating, (P.), B., 129.
- Roser, O. See Stellé, R.
- Roseveare, W. E. See Silverman, D.
- Rosewarne, P. V., and Campbell, W. P., weathering of crude naphtha in Turner Valley, B., 612.  
and Offord, R. J., helium in Canada from 1926 to 1931, A., 140.
- Roshdestvenski, M. S., and Karskaja, T. N., *m*-phenylenediamine sulphate, A., 1285.  
and Zepalova-Michailova, L. A., benzonitrile, A., 821.
- Roshdestvenski, S. See Zilberman, G.
- Rosicky, V., nomenclature of plagioclases, A., 252.
- Rosier, C. A., highly combustible gaseous fuel from hydrocarbons, (P.), B., 1045.

- Rosin, *Jakob*, fractionation column, A., 586.  
 Rosin, *Joseph*, and Hitchcock, *F. C.*, detection of glucose and sucrose in lactose, B., 246.  
 See also Bliss, *A. R., jun.*, and Schnellbach, *W.*  
 Rosin, *P.*, circulation dryer without crushing means, (P.), B., 528.  
 and Rammner, *E.*, grinding and grinding machinery, B., 991. Laws governing the fineness of powdered coal, B., 1040.  
 Rammner, *E.*, and Doerffel, *F.*, combustion of brown coal high in ash, B., 1041.  
 See also Barthelmess, *E.*  
 Rosinskaja, *I. M.* See Kagan, *M. Y.*  
 Rosljakova, *E. N.* See Krause, *K. E.*  
 Rosner, *S.*, cholesterol in dermatoses, A., 85.  
 Ross, *C. S.*, and Kerr, *P. F.*, physical chemistry of the alumina-silica refractories. II. The clay minerals, A., 229.  
 See also Wells, *R. C.*  
 Ross, *D. E.* See Peffer, *H. C.*  
 Ross, *J.*, course of addition of enolic sodium-alkylmalonic esters to phenylthiocarbimide, A., 1276.  
 See also Edgar, *R.*, and Michael, *A.*  
 Ross, *J. D. M.*, and Morrison, *T. J.*, acid salts of monobasic organic acids. I. [*r*-Mandelic acid], A., 1013.  
 Ross, *J. H.* See Mitchell, *C. R.*  
 Ross, *O. E.*, why does a tallowy flavour develop in strawberry ice cream? B., 1032.  
 Ross, *P. A.* See Kirkpatrick, *P.*  
 Ross, *T. W.* See Jones, *G. D. O.*  
 Ross, *W. E.* See Fuson, *R. C.*  
 Ross, *W. H.*, granulation of fertilisers, B., 35.  
 See also Montgomery, *C. G.*  
 Ross & Rowe, Inc. See Jordan, *S.*  
 Rossati, *G. M.*, artificial wool, (P.), B., 824.  
 Rossi, *A.*, crystal structure of the compound  $\text{LaAl}_3$ , A., 558. Crystal structure of  $\text{LaSn}_3$  and  $\text{LaPb}_3$ , A., 1003.  
 See also Canneri, *G.*  
 Rossi, *B.*, interaction between cosmic rays and matter, A., 996.  
 Rossi, *C.*, distribution of particle diameters in disperse liquid phases, A., 673.  
 Rossi, *G.*, is there a vitamin-A-hyper-  
 vitaminosis? A., 987.  
 and Marescotti, *A.*, adsorption of Congo-red by animal charcoal, A., 563. Study of synergism, A., 568. Methods proposed for testing adsorptive value of active carbons, B., 900. Adsorptive power of wheat flour and other cereal flours of various types, B., 936.  
 and Scandellari, *G.*, coagulation of colloidal sulphur solutions by gelatin, A., 567. Relation of adsorption to the degree of dispersion of the adsorbent, A., 774.  
 Rossignoli, *J.*, Di Bonedetto, *Elena*, and Di Bonedetto, *En.*, physico-chemical changes in the plasma of thyroid-ectomised dogs, A., 854.  
 See also Berconsky, *I.*  
 Rossini, *F. D.*, heat of formation of hydrochloric acid and related thermodynamic data, A., 27.  
 and Frandsen, *M.*, calorimetric determination of the intrinsic energy of gases as a function of the pressure; data on oxygen and its mixtures with carbon dioxide to 40 atmospheres at 28°, A., 217.  
 Rossman, *K. V. B.*, and Federated Metals Corp., treatment of zinc skimmings, (P.), B., 111.  
 Rossmann, *E.*, elaeostearic acids. I. Isomerism of the elaeostearic acids. II. Polymerisation of the elaeostearic acids, A., 50, 807. Addition of bromine vapour according to P. Becker; micro-detection of active and inactive double linkages, A., 142. Solidification point of [China] wood oil, B., 796. Fresting of tung oil and drying of oil by ionised oxygen, B., 836.  
 Rossow, *O.* See Müller, *Enich.*  
 Rostagni, *A.* See Kallmann, *H.*  
 Rostin, *H.*, treatment of low-boiling hydrocarbons, (P.), B., 996.  
 Rostone, Inc., structural material [artificial stone], (P.), B., 707.  
 See also Peffer, *H. C.*  
 Rotbart, *M.*, new ether-acetals and ether-aldehydes, A., 1037.  
 See also Palfray, *L.*  
 Roters, *H.* See Schenck, *R.*  
 Roth, *H.* See Gall, *H.*  
 Roth, *Hans.* See Nottebohm, *E.*  
 Roth, *Hubert.* See Kuhn, *R.*  
 Roth, *J. F.*, laboratory method for determining velocity of detonation with short lengths [of explosive], B., 493.  
 Roth, *W. A.*, and Meyer, *I.*, physico-chemical constants of dioxan, A., 217.  
 Meyer, *I.*, and Zeumer, *H.*, atomic heats, and the heats of fusion and transformation of gallium, indium, and thallium, A., 1237.  
 Rothchild, *H. A.*, Limpert, *J. A.*, and Paper Patents Co., testing the loading material used in paper manufacture, (P.), B., 1005.  
 Rothe, *H.*, and Kleen, *W.*, nature of glow discharges, A., 1220.  
 Rotheim, *E.*, apparatus for spraying materials, (P.), B., 177. Atomisation of materials, (P.), B., 897.  
 Rothmund, *P.*, and Inman, *O. L.*, occurrence of decomposition products of chlorophyll. I. Decomposition of chlorophyll in digestive system of the cow, A., 168.  
 Rothen, *A.* See Levene, *P. A.*  
 Rothenbach, *E.*, determination of various sugars in worts and beers by Fehling's solution, B., 648.  
 Rothenfusser, *S.*, sugar determination, A., 1278.  
 Rother, *F.*, and Bomke, *H.*, proof of a limiting layer in the cuprous oxide barrier layer cell, A., 554.  
 Rother, *P.*, and Grau, *G.*, determination of percentage of water in wood, textiles, and other substances, (P.), B., 945.  
 Rothhaas, *A.*, reaction of hydroxymaleic anhydride with ammonia and aliphatic amines; preparation of substituted maleimides, A., 489.  
 See also Wrede, *F.*  
 Rothlin, *E.*, external absorption of ergot alkaloids and their specific action on the circulation, A., 1077.  
 Rothmann, *A.* See Pincussen, *L.*  
 Rothmann, *S. C.*, variable-control still head for laboratory columns, A., 1135.  
 Rothrock, *H. S.* See Evers, *W. R.*, and Whitmore, *F. C.*  
 Rothschild, *M.* See Mislowitz, *E.*  
 Rothschild, *S.*, sensitised phosphorescence, A., 7.  
 See also Stollé, *R.*  
 Rotini, *O. T.*, and Snassel, *F.*, toxic action of sodium nitrite on catalase of ox blood, A., 634.  
 Rotsch, *A.* See Fortner, *P.*, Geyer, *E.*, and Pfahl, *W.*  
 Rotter, *D. L.* See Hynd, *A.*  
 Rottig, *W.* See Langenbeck, *W.*  
 Rouard, *P.*, reflecting power of thin metallic films, A., 8.  
 Roubine, *P.*, volume and production of [iron] blast furnaces; importance of pretreating the charge, B., 868.  
 Ronchard, *J.*, inhibitory action of ions on fluorescence of uranine, A., 337.  
 Rougebief, *G.* See Sandor, *G.*  
 Roughton, *F. J. W.* See Brinkman, *R.*, and Meldrum, *N. U.*  
 Roulton, *J. A.*, and Atlantic Refining Co., apparatus for heating, (P.), B., 946.  
 Rountree, *P. M.*, bacteriological oxidation of sulphur in an Australian soil, A., 1333.  
 See also Penman, *F.*  
 Rouse, *A. H.* See Anderson, *A. K.*  
 Ronsh, *L.*, preparation of whipped cream, (P.), B., 91.  
 Rousslaoroix, *A.*, Boyer, *L.*, and Boiron, *J.*, effect of organic substances on toxic action of hypochlorite in *B. coli*, A., 430.  
 Rousseau, (*Mlle.*) *G.* See Montagne, (*Mlle.*) *M.*  
 Rousset, *A.*, molecular diffusion of light; Cabannes-Daure effect and molecular field, A., 113.  
 See also Cabannes, *J.*  
 Roussin, *A. L.* See Bradley, *A. J.*  
 Routala, *O.*, and Murto, *J. O.*, hemicellulose from evergreen and leaf-tree waste. III., B., 780.  
 Roux, *J.* See Fromageot, *C.*  
 Rouyer, *E.* See Bourion, *F.*  
 Rover, *J. C.*, [cane-sugar factory] laboratory notes, B., 280.  
 Rovinski, *B. M.* See Bachmetev, *E. F.*  
 Rowan, *P. A.*, determination of citronellal in citronella oil, B., 44. Examination of arsenical insecticides, B., 885.  
 Rowan, *W. H.*, and Buckner, *H. K.*, curing of cement concrete, (P.), B., 388.  
 Rowden, *W. F.*, molybdenum-manganese alloy steels, B., 108.  
 Rowe, *A. C.*, steels for the finishing industry, B., 590.  
 Rowe, *F. M.*, and Peters, *A. T.*, new reaction of diazosulphonates derived from  $\beta$ -naphthol-1-sulphonic acid. XI. Constitution of the phthalazine derivatives, A., 1059. Tautomerism in the phthalazine series; *N*- and *O*-derivatives of 1-methylphthalaz-4-one and phthalaz-1,4-dione, A., 1308.  
 Rowe, *F. W.*, steels for case-hardening, B., 151.  
 Rowe, *G. K.*, catalytic effect of caustic alkali on alcoholysis and hydrolysis of fats, B., 274.  
 Rowe, *H. J.*, and Gingerich, *E. M.*, casting of aluminium alloys, B., 1013.  
 Rowe, *L. W.* See Gilman, *H.*  
 Rowland, *A.* See Crile, *G.*  
 Rowland, *B. N.* See Young, *G. H.*  
 Rowland, *B. W.* See Goodyear Tire & Rubber Co., and McCarron, *R. D.*  
 Rowland, *H. R.* See Elders, *A. T.*  
 Rowley, *H. H.*, and Bonhoeffer, *K. F.*, energy exchange at platinum-hydrogen interface, A., 562.  
 See also Farkas, *A.*, and Nutting, *H. S.*  
 Rowley, *W. H.*, and Evans Lead Co., composition of matter [for storage batteries], (P.), B., 674.  
 Roxburgh, *H. L.* See Melville, *H. W.*

- Roy, A. S., spectrum of the discharge through oxygen and hydrogen mixtures, A., 331. Effect of helium on continuous and secondary spectra of hydrogen, A., 655.  
and Duffendack, O. S., excitation potential of the  $\lambda$  2883 and 2895 bands of carbon dioxide, A., 763.
- Roy, (Mlle.) M., alteration of castor oil by heat, A., 876. Rotatory power of castor oil and the alteration which it undergoes during prolonged heating of the oil, B., 513.  
See also Boutaric, A.
- Roy, S. N., and Sen, H. K., reaction of diazonium salts with open-chain hydroxymethylene ketones, A., 1053.
- Roy, W. R. See McHargue, J. S.
- Royal Baking Powder Co. See Stokes, W. E.
- Royce, H. D., stability of fats and oils; applications of the methylene-blue test, B., 753. Stability tests on fats containing oxidation accelerators and inhibitors, B., 875. Determination of gossypol in crude cottonseed oil, B., 974.  
and Lindsey, F. A., jun., gossypol in the technology of cottonseed oil, B., 974.
- Royen, P., and Schwarz, R., germanium. XIII. Calcium germanide and unsaturated germanium hydride, A., 579.
- Royer, L., orientation of crystals of organic substances on minerals of ionic structure, A., 213. Difference between mica and clay as regards possible orientation of crystals growing thereon, A., 369. Orientation of crystals on hydrargillite, and on twinned calcite, A., 451.
- Royer, M., determination of urobilin, A., 299. Mesobilirubinogen as a standard in determination of urobilin, A., 1218.
- Rozenbroek, M. D., determining wetting properties of liquids, B., 622.
- Rozenfeld, A. D., determination of minute quantities of morphine and opium, B., 524.
- Rozental, S., lowest excited state of neon according to Slater's method, A., 879.
- Rozentreter, P. G., electrochemistry of ethereal solutions. X. Phosphorus trichloride-ethyl ether, A., 354.  
See also Usanovitch, M.
- Rozhdetsvenski, I. G., application [to soils] of difficultly soluble with easily soluble phosphates, B., 679. Influence of increased applications of ammonium nitrate, superphosphate, and phosphates in general on the yield of oats, B., 933.
- Rozhkova, E. V. See Archangelski, A. D.
- Rozov, B. I., and Sukhovolskaja, S. D., flotation of copper oxide ores, B., 308.  
See also Alexeev, L. M., and Lainer, V. I.
- Rozov, L. P., drainage of heavy podzols, B., 242.
- Rózycki, W. See Dziewoński, K.
- Ruark, A. E., exponential law of radioactive disintegration, A., 1224.  
See also Foote, P. D., and Western, F.
- Rubber & Celluloid Products Co. See Bowley, E. J.
- Rubber Growers' Assoc., Inc., and Martin, George, unvulcanised indiarubber from rubber latex, (P.), B., 880. Preparation of soft rubber and unvulcanised indiarubber in crumb or powder form, (P.), B., 880.
- Rubber Process Corporation. See Bigger, A. F.
- Rubber Service Laboratories Co., and Sibley, R. L., vulcanisation of rubber, (P.), B., 358, 558.  
See also Behrend, O., Bertsch, J. A., Byers, H. G., Horst, W. P. ter, Hubacher, M. H., Ingram, J. R., Magoun, G. L., North, C. O., Scott, W., Sibley, R. L., Smith, Arnold H., and Vignos, J. C.
- Rubel, W. See Michlin, D.
- Ruben, S., [electrical] resistance element, (P.), B., 796.  
and Ruben Condenser Co., polarised electrolytic couple, (P.), B., 835. Electrolytic condenser, (P.), B., 835. and Ruben Patents Co., generation of electrical potential, (P.), B., 26. [Electrical] resistance element, (P.), B., 796.  
and Ruben Rectifier Corp., electrolytic cell, (P.), B., 26. Electric current rectifier, (P.), B., 835.  
and Ruben Rectifier Corp. of Delaware, electric current rectifier, (P.), B., 396.
- Ruben Condenser Co. See Ruben, S.
- Ruben Patents Co. See Ruben, S.
- Ruben Rectifier Corporation. See Ruben, S.
- Ruben Rectifier Corporation of Delaware. See Ruben, S.
- Rubens, E., the Schulze-Tiemann and Lunge methods for determining nitrogen in nitrocellulose, B., 1086.
- Rubenstein, B. B., kinetics of intracellular carbohydrate oxidation of *Sarcina lutea*. I. and II., A., 753, 866.
- Rubey, W. W., settling velocities of gravel, sand, and silt particles, B., 428.
- Rubin, B. I. See Reiman, M. A.
- Rubin, B. M. See Taube, G.
- Rubin, C. See Dietrichson, G.
- Rubin, F. W., and Utility Manuf. & Sales Co., drying of lumber, (P.), B., 388.
- Rubin, L. C. See Gary, W. W.
- Rubinfeld, S. H. See Soskin, S.
- Rubinstein, A. M., Balandin, A. A., Dolgoploska, B. A., Morozov, K. A., and Vagranskaja, L. I., catalytic oxidation of butyl alcohol to butaldehyde, A., 805.
- Rubinstein, M. See Labbé, M.
- Rubloff, S. G., chrome yellows, B., 355.
- Rubowitz, M., isoelectric point of hemoglobin at high altitude, A., 1315.
- Ruch, M. See Gartner, E.
- Ruchelmann, A., urease. V. Oligodynamic action of non-alkali metals of the first group on urease, A., 637.
- Ruckelshaus, J. G., and Kempf, N. W., absorbent material [for ammonia refrigerating systems], (P.), B., 208.
- Rudakov, D. I., good quality cotton-like fibre, B., 662.
- Rudakov, G. A. See Tischtchenko, V. E.
- Rudd, J. B. See Bailey, V. A.
- Rudenko, E. I. See Nikolaiev, V. I.
- Rudert, H., and Heilmeyer, L., spectrophotometric investigation of urobilin, A., 850.
- Rudge, A. J. See Briscoe, H. V. A.
- Rudge, E. A., decomposition of timber under industrial conditions. I. Greenheart, B., 917.
- Rudin, R. P., material for use as sound-record carrier which is capable of being subsequently hardened, (P.), B., 479.
- Rudnev, N. A., effect of nitric acid on precipitation of barium sulphate, A., 137.
- Rudneva, T. I. See Nikitin, N. I.
- Rudnitski, Z., colour reaction for sulphur dioxide, A., 687.
- Rudolfs, W., chemical changes during the life cycle of the tent caterpillar (*Malacosoma Americana*). V., A., 968. Chlorine absorption by sewage sludge, B., 686.  
and Cleary, E. J., [sewage] sludge disposal and future trends, B., 766.  
and Heukelekian, H., aerobic and anaerobic decomposition of sewage solids. I. Changes during decomposition processes, B., 46.  
and Miles, H. J., heat losses from [sewage] sludge digestion tanks, B., 414.
- Rudolph, G., dyeing cotton-viscose rayon stockings, B., 504. Dyeing of cotton-viscose-acetate rayon mixtures, B., 863.
- Rudolph, L. See Schwab, G. M.
- Rudolph, W., experimental investigation of grating ghosts, A., 656.
- Rudorf, H. See Kleberger, W.
- Rudy, H., chemical nature of lipin antigens, particularly of cerebral antigen, A., 1317.  
See also Plant, F.
- Rudy, W. J. See Triebold, H. O.
- Rue, J. D., and Sconce, J. S., direct chlorination as an aid in bleaching of sulphate pulp, B., 56.  
Wells, S. D., Rawling, F. G., and Hyde, A. M., treatment of wood for production of pulp; preparation of pulped [wood] material; production of fibrous pulp from vegetable material, (P.), B., 460. Wood pulp [for corrugated board], (P.), B., 460.
- Ruebenbauer, H., and Switalska, J., analysis of Tatra Mountain sheep's-milk cheese, B., 569.
- Rückert, W., raw or thickened tung oil [in varnishes]? B., 676.
- Rüder, H. B., and Internat. Precipitation Co., electrical precipitation apparatus [for gases], (P.), B., 716.
- Rüdiger, M., determination of alcohol yield of cereals and polarimetric determination of starch, B., 1077.  
and König, K., preservation of milk for examination, B., 168.
- Rueff, G. See Berl, E.
- Ruehe, H. A. See Ramsey, R. J.
- Rühl, A., gaseous metabolism during cardiac insufficiency. I. Histamine, A., 1323.
- Ruemele, T., rôle of the measurement of viscosity in mill chemistry, B., 329. Experiments with the Tehar viscosimeter, B., 338.
- Rümmeler, W. See Lüers, H.
- Rüping, H. See Engelhardt, A.
- Ruer, R., transformation of  $\beta$ -mixed crystals in brass, A., 118.
- Rüter, H. See Jost, W.
- Rütgerswerke Akt.-Ges., and Kahl, L., wetting agents [for mercerising liquors], (P.), B., 1054.
- Ruf, K. See Grunert, A.
- Ruff, O., high-temperature chemistry, A., 132.  
and Braidat, A., bromine fluoride, BrF, A., 1130. BrF<sub>3</sub>, A., 1130.  
and Bretschneider, O., formation of hexafluoroethane and tetrafluoroethylene from carbon tetrafluoride, A., 372. Preparation of aluminium oxide-kaolin crucibles, B., 268.
- Ebert, Fritz, and Krawczynski, U., ceramic refractory materials. VII. Binary systems MgO-CaO, MgO-BeO, CaO-BeO, A., 1013.

- Ruff, O., and Grieger, P., heat of formation of silicon carbide, A., 466.  
and Kwasnik, W. [with Ascher, E.], fluorination of rhenium, A., 40.  
and Menzel, W., oxygen fluorides:  $O_2F_2$  and  $OF_2$ , A., 476. Behaviour of argon and krypton with fluorine in electrical discharges, A., 914.  
and Staub, L., nitrogen fluorides: partial diagram of the system  $NH_3$ -HF, A., 782.
- Ruff, W., and Scheil, E., dearsenication of iron ores, B., 64.
- Ruffley, F., and De Forest Radio Co., production of electron emitters, (P.), B., 926.
- Ruffy, J. See Fellenberg, T. von.
- Rufinski, I., ozonisation of the fatty acids of cottonseed oil, B., 877.
- Ruggles, G. H., ore flotation, (P.), B., 111.
- Ruggli, P., substantive dyeing of cellulose fibres, B., 545.  
and Courtin, A., azo-dyes and their intermediate products. XI. *peri*-Bis-azo-dyes. II, A., 59.  
and Zimmermann, A., isatogens. X. Synthesis of an isatogen and indoxyl of the benzopyrrole series, A., 285.  
Zimmermann, A., and Heitz, W., isatogens. XI. Reduction products of di- and tri-nitrodistyrylbenzene, A., 602.
- Ruhkopf, H. See Windaus, A.
- Ruhland, W., Ullrich, H., and Yamaha, G., penetration of electrolytes of organic anions and univalent cations into the cells of *Beggiotoa mirabilis*, A., 330.
- Ruhnke, G. N. See Lohse, H. W.
- Ruhoff, J. R., nitration of *o*-dichlorobenzene, A., 1041. Aliphatic hydrocarbons in "Lorol," B., 1046.  
and Reid, E. E., isomeric [fatty acid] esters, A., 1141.
- Ruhrchemie Akt.-Ges., [ammonium sulphate-nitrate] fertilisers, (P.), B., 86. Mixed [fertiliser] salts containing ammoniacal and nitrate-nitrogen jointly, (P.), B., 385. Mixed fertilisers containing ammonium nitrate and phosphate, (P.), B., 403. Regenerative heating of reaction chambers for carrying out endothermic chemical reactions, (P.), B., 528. Pyrolysis of hydrocarbons, (P.), B., 536. Production of nitrogenous and phosphatic mixed fertilisers of desired composition by treatment of raw phosphates with nitric acid, (P.), B., 885. Mixed fertilisers, (P.), B., 885.
- Ruibak, B., lowering sodium hydroxide consumption in refining lubricating oils, B., 212.
- Ruibin, S. I., thermometric titration of acetaldehyde in presence of organic and inorganic acids, A., 292.
- Ruikov, G. V., reduction of metals with gas, B., 193. Metallurgy of zinc, B., 922. Treatment of residues and rationalisation of zinc-distillation processes, B., 1061.  
See also Vanyukov, V. A.
- Ruisakov, M. V., and Buschmakin, I. N., corrosion of metals and alloys by phosphoric acid and phosphorus, B., 271.  
See also Buschmakin, I. N.
- Ruiss, I. G. See Yatlov, V. S.
- Ruitikov, M. G. See Zakoshchikov, A. P.
- Ruiz, A. S., and Torres, I., determination of cholesterol. I. Colorimetric methods, A., 1063.  
See also Collazo, J. A.
- Ruizhenkova, M. T., salt tolerance by cotton, B., 934.
- Rule, H. G., and Barnett, A. J. G., reactivity of *peri*-substituted naphthalenes. II. Replacement of halogen in 8-halogeno-1-naphthoic and *o*-halogenobenzoic acids, A., 63.
- Barnett, (Miss) M. M., and Cunningham, J. P., solvent action. VII. Rotatory power of diethyl tartrate in relation to solvent, concentration, degree of association, and temperature, A., 1110.
- Smith, (Miss) E. B., and Harrower, J., solvent action. VI. Optical rotatory powers of  $\beta$ -octanol, *d*-amyl alcohol, and their derivatives, A., 565.
- Rulla, N. V. See Gotlib, A. D.
- Rumeau, G., optical antipodes and velocity of crystallisation: non-existence of racemic form in liquid state, A., 345.
- Rumford, F. See South Metropolitan Gas Co.
- Rumford Chemical Works. See Bryan, C. S., and Fiske, A. H.
- Rummel, J. K., control tests for treatment of feed and boiler water, B., 175.
- Rummel, K., plan of a lattice-work for blast preheaters for [iron] blast furnaces, B., 1011.  
and Schwiedessen, H., development of combustion in technical firing [of furnaces], B., 687.
- Rummel, K. W. See Bonhoeffer, K. F.
- Rumpel, H. H., and Smith Eng. Works, crushing mill concave holding means, (P.), B., 768.
- Rumpelt, H. See Hollenweger, H.
- Rumpf, P., colour reaction of aldehydes, A., 1036. Electrometric titration of sulphurous, selenious, and  $\alpha$ -hydroxy-alkylsulphonic acids, A., 1200. Rapid examination of waters, using a photo-electric cell, B., 366.
- Rundle, A. S., determination of glucose with ammoniacal silver nitrate solution, A., 844.
- Rundle, A. S. R. See Woodroffe, D.
- Rünge, F. See Borsche, W.
- Runge, H., Hartmann, H., and Sievers, K., excretion of follicular and anterior pituitary hormone at the end of pregnancy, A., 194.
- Runge, O. See Bunte, K.
- Runkel, R., technical significance of hemicelluloses, B., 299.
- Runnels, H. A., and Wilson, J. D., control of *Alternaria* blight of ginseng with Bordeaux mixture and injuries accompanying its use, B., 805.  
See also Wilson, J. D.
- Runnström, J., metabolism of the developing egg of the sea-urchin, A., 417.
- Runov, E. V., physiological characteristics of *B. fluorescens* as a denitrifier, A., 96.
- Rupe, H., Haecker, R., Kampli, E., and Wassiele, N., acetylenic carbinols from optically active 3-methylcyclohexanone and their conversion into unsaturated ketones, A., 825.  
and Hirschmann, H.,  $\alpha$ - and  $\beta$ -cinenic acids, A., 719.
- Pedriani, E., and Collin, A., *p*-dimethylaminobenzylidene [derivatives of] ketones. III. Auxochromic groups, A., 72.
- Rupilius, K. See Berzacy, T.
- Rupp, E., polarisation of electrons, A., 3. Diffraction of fast protons by gold foil, A., 3. Polarisation of electrons after two scatterings through  $90^\circ$ , A., 109. Nature of the spontaneous current on illumination of various detector substances, A., 114.  
and Hamann, G., evaluation of potassium iodide ointment, B., 332.  
and Poggendorf, A., evaluation of sodium cacodylicum, D.A.B. VI, and ferrum cacodylicum, E.B. V., B., 1034.  
See also Kluge W., Meibom, R. von, and Schönberg, A.
- Rusanov, A. K., spectroscopic analysis of minerals with the acetylene-air burner, A., 1132. Spectroscopic determination of alkali metals in mica with the aid of the air-acetylene flame, A., 1261. Spectroscopic determination of lithium, A., 1262.
- Rusby, J. M., Battin, W. I., and U. G. I. Contracting Co., coal gas, (P.), B., 498.
- Ruscetta, R. A. See Brit. Thomson-Houston Co.
- Ruschmann, G., water formation in potato silage, B., 360. Discoloration of potatoes during steaming and the inferior silage produced from them, B., 410.  
and Meyer, W., preservation of the surface in potato silage, B., 84.
- Ruselite Corporation. See Russell, C. D., and Schroeder, H. F.
- Rushchinski, A. L., polymerised vinyl acetate and polyvinyl alcohol, B., 276.
- Ruska, E., electron microscope images of surfaces exposed to electrons, A., 881.  
See also Borries, C. von, and Knoll, M.
- Ruska, H. See Wagner-Jauregg, T.
- Ruskin, S. L., organic compounds [nucleinates], (P.), B., 732.
- Russe, A. See Lindner, K.
- Russell, Alfred. See Currie, T.
- Russell, Arthur. See Pochin, H. S.
- Russell, C. C. See Powell, Alfred R.
- Russell, C. D., and Ruselite Corp., art of metallurgy; [copper alloy], (P.), B., 111. [Aluminium] alloy, (P.), B., 112.  
See also Schroeder, H. F.
- Russell, (Sir) E. J., and Bishop, L. R., investigations on barley; report under Institute of Brewing Research Scheme, 1922-1931, B., 728.
- Russell, E. W., significance of "single-value" soil constants, B., 560.
- Russell, G., Crookes' radiometer and intensity of radiation, A., 585.
- Russell, H. N., and Meggers, W. F., lanthanum spectra (La I, La II, La III), A., 2.
- Russell, P. F., and West, A. P., larvicidal studies. V. Effect on *Culex* larvae of Paris-green diluted with charcoal, and the feeding habits of *Culex quinquefasciatus*, B., 279.
- Russell, R. H., and Gas Fuel Corp., apparatus for making emulsified compounds including hydrocarbons, (P.), B., 855.
- Russell, R. P., and Standard-I. G. Co., treatment of hydrocarbons, (P.), B., 614.
- Russell, R. S., influence of impurities on properties of lead. II. (a) Purification of lead by electrolysis; (b) comparison of the crystallisation of commercial and electrolytic leads; (c) photomicrography of lead, B., 309. Testing the purity of high-grade lead, B., 309.

- Russell, W. C., Taylor, M. W., and Chichester, D. F., relation between vitamin-A potency and carotene content of green plant tissue, A., 432.
- Taylor, M. W., and Wilcox, D. E., fate of antirachitic factor in the chicken. II. Effectiveness of the factor administered by mouth and intraperitoneally, A., 326.
- Russell, W. F. See Somerville, A. A.
- Russell, W. M., and Gas Machinery Co., water-gas, (P.), B., 377.
- Russow, F. K. See Täufel, K.
- Rusterholz, A. A., anomalous scattering of X-rays by copper, A., 665.
- Rusting, N. See N. V. Stikstofbindingsind. "Nederland."
- Ruszkowski, S. See Maison G. de Navarre.
- Rusznýk, S., and Hatz, E., volumetric determination of small quantities of sodium, A., 42. Volumetric micro-determination of uric acid in urine and blood, A., 410.
- Rutenbeck, H. See Labes, H.
- Rutgers, A. J., dispersion theory of sound, A., 343.
- Rutgers, J. J. See Girard, André.
- Ruth, B. F. [with Montillon, G. H., and Montonna, R. E.], filtration. I. Critical analysis of filtration theory. II. Fundamental axiom of constant-pressure filtration, B., 207, 287.
- Ruth, J. P., jun., flotation method, (P.), B., 834.
- Ruth Akt.-Ges., G., and Asser, E., protective coatings resistant to liquid fuels, (P.), B., 399.
- Ruth-Aldo Co., Inc., preparation of hollow artificial silk of low lustre, (P.), B., 187.
- Ruthardt, K. See Gerlach, Walther.
- Rutherford, (Lord), recent researches on transmutation of the elements, A., 443.
- Lewis, W. B., and Bowden, B. V., analysis of long-range  $\alpha$ -particles from radium-C' by the magnetic focussing method, A., 1224.
- Wynn-Williams, C. E., Lewis, W. B., and Bowden, B. V., analysis of  $\alpha$ -rays by an annular magnetic field, A., 443.
- See also Oliphant, M. L. E.
- Rutherford, E. J. Y., liquid fuel burners, (P.), B., 10.
- Rutherford, H. A. See Purdum, R. B.
- Rutovski, B. I., and Dolmatov, K. P., utilising waste from anise oil, B., 333.
- Rutovski, B. N., and Gusseva, K. A., essential oil of *Salvia sclarea*, L., B., 333.
- and Sabrodina, K., *Salvia* oils, B., 1034.
- Ruttner, F., metallic oxygen minima, A., 802.
- Rutz, G., hydration as a strength factor in [paper] sheets, B., 223.
- Rutzler, J. E., jun. See Bancroft, W. D.
- Ruwe, H. H. See Vernon, C. C.
- Ruyer, A. See Bedos, P.
- Ruyssen, R., determination of ozone. I.—III, A., 136, 362, 921. Emission of Gurnitsch radiation by gaseous reactions, A., 793.
- Růžicka, A., and Šimek, B. G., improvement of lignite by heating in presence of steam under pressure, B., 946.
- Ruzicka, L., carbon rings with a large number of carbon atoms, A., 383. [Sapotalin], A., 830.
- Boekenooen, H. A., and Edelman, H. J., carbon rings. XXIII. Parachor and compressibility of multi-membered ring compounds, A., 715.
- Ruzicka, L., Brüngger, H., Egli, R., Ehmann, L., and Goldberg, M. W., polyterpenes and polyterpenoids. LXXVII. Dehydration of betulin, gypsogenin, and siarresinolic acid; hydroxysapotalin, A., 69.
- Ehmann, L., Goldberg, M. W., polyterpenes and polyterpenoids. LXXXIV. Synthesis of 1:2-cyclopentanophenanthrene, its  $\alpha$ - and  $\beta$ -methyl-derivatives and chrysene, A., 820.
- Ehmann, L., and Mörgel, E. [with Isler, O., Geering, R., Wyszewianski, L., Scholz, O., and Hauschild, W.], polyterpenes and polyterpenoids. LXXXI. Synthesis of 1:2:5:6-tetramethylnaphthalene and analogous hydrocarbons; hydrocarbon skeletons of the triterpenes, A., 494.
- Furter, M., and Thomann, G. [with Goldberg, M. W.], polyterpenes and polyterpenoids. LXXXII. Stereochemistry of ring-system of cholestan and  $\psi$ -cholestan, A., 494.
- Goldberg, M. W., and Thomann, G., polyterpenes and polyterpenoids. LXXXIII. Dehydrogenation of cholesterol, ergosterol, and cholic acid with selenium and palladium, A., 820.
- Goldberg, M. W., Thomann, G., and Brandenberger, E., selenium dehydrogenation of sitosterol, A., 1284.
- Hürbin, M., and Boekenooen, H. A., carbon rings. XXV. Introduction of a triple linking in the fifteen- and seven-membered carbon rings, A., 599.
- Pieth, P., Reichstein, T., and Ehmann, L. [with Maderni, P., Vass, F., and Pfähler, K.], polyterpenes and polyterpenoids. LXXX. Alantolactone; synthesis of 1:4-dimethyl-6-isopropyl- and 1:5-dimethyl-7-isopropyl-naphthalene, A., 494.
- and Schläpfer, P., carbon rings. XXII. Heats of combustion of high-membered ring compounds, A., 230.
- Seidel, C. F., and Schinz, H., substances with the odour of violets. III. Empirical formula and reactions of iron, A., 1296.
- and Stoll, M., carbon rings. XXIV. Twenty-three-membered carbon ring, A., 599.
- Stoll, M., Scherrer, W., Schinz, H., and Seidel, C. F., carbon rings. XX. Unsaturated 16- and 18-membered carbon rings of the type of civetone, A., 65.
- and Thomann, G., polyterpenes and polyterpenoids. LXXIX. Constitution of cholesterol and bile acids, A., 278.
- Wakeman, R. L., Furter, M., and Goldberg, M. W., polyterpenes and polyterpenoids. LXXVI. Dihydro- $\alpha$ -elemolic acid and  $\delta$ -elemolic acid and tetrahydro-derivative of the latter, A., 69.
- and Waldmann, H., polyterpenes and polyterpenoids. LXXXV. Transformation of abietic acid by oxidation into 1:3-dimethylcyclohexan-2-one and by dehydrogenation with palladium into retene, A., 820.
- Waldmann, H., Meier, P. J., and Hösli, H., polyterpenes and polyterpenoids. LXXVIII. Position of the carboxyl group and double linkings in abietic acid, A., 279.
- Ryabinin, A. A. See Braun, A. A.
- Ryan, H. W. B., reaction between a gas and a solid; absorption of carbon dioxide by calcium oxide and by calcium hydroxide, A., 574.
- Ryan, J. D., and Watkins, G. B., determination of plasticisers in organic cellulosic plastics, B., 556.
- Ryan, J. F., Stegmayer, C., and Mutton Hollow Fire Brick Co., fritting furnace, (P.), B., 465.
- Ryan, J. J. See Boyle, C., and Pyne, G. T.
- Ryan, L. W., Harkins, W. D., and Gans, D. M., flocculation, dispersion, and settling of pigments in relation to adsorption, B., 29.
- Ryan, T. J., distillation of crude oil, (P.), B., 536.
- Ryazanovski, N. A., oil emulsions and their decomposition by means of the electric current, B., 949.
- Rybáček, L., effect of sodium perborate on glycerol, B., 1083.
- Rybin, S. I., and Medvedev, S. S., wood-spirit oil, B., 691.
- Rycroft, R. T., and Jewell Steel & Malleable Co., malleable iron casting, (P.), B., 591.
- Rydborg, R., potential curves for mercury hydride, A., 338.
- See also Hultén, E.
- Rydbom, M., growth-promoting action of xanthophyll, A., 432.
- Ryde, J. W., and Cooper, B. S., theory and specification of opal diffusing glasses. I., B., 347.
- Cooper, B. S., and Stoye, W. A. R., theory and specification of opal diffusing glasses. II., B., 347.
- Ryde, N., optical investigations of discharge by condensed spark in low-pressure gases, A., 108. Stark effect in the krypton spectrum, A., 759.
- Ryde, J. C., and Petroleum Derivatives, Inc., distillation apparatus [for hydrocarbons], (P.), B., 52.
- Rydon, H. N. See Boorman, E. J., and Linstead, R. P.
- Rygielski, J. See Kemula, W.
- Rymashevskaja, J. See Schorin, P. P.
- Ryšánek, A. See Jilek, A.
- Ryschkevitch, E., electrical conductivity of fused salt mixtures, A., 908.
- and Roessler & Hasslacher Chem. Co., [refractory] articles of zirconium oxido, (P.), B., 20.
- Ryss, I. G., and Orlov, S. S., conversion of sodium chromate into dichromate by means of hydrofluoric acid, B., 748.
- Ryselberge, M. van, resistance of mineral oils to oxidation, B., 293.
- Ryselberghe, P. van, transport numbers in mixed aqueous solutions of alkali chlorides. I. Theoretical, A., 466.
- and Nutting, L., transport numbers in mixed aqueous solutions of alkali chlorides. II. Transport numbers of the potassium, the rubidium, and the caesium ions in concentrated solutions of sodium chloride, and of the potassium ion in concentrated solutions of lithium chloride, A., 466.
- Rytchkova, E. K. See Planovski, N. I.
- Rzadkowski, L., determination of water content of fatty acids, B., 1065.
- Rzymowska, C. J., determination of moisture in tobacco, B., 204.
- S.
- S. H. G., Inc. See Wannack, C. O.
- S. M. A. Corporation. See Richards, W. F.
- S. O. S. Processing Co., Inc., and Stewart, V. A., treating photographic emulsion layers, (P.), B., 653.



- Saal, R. N. J., and Koens, G., plastic properties of asphaltic bitumen, B., 373.  
and Verver, C. G., analytical steam-distillation for measuring volatility range of lubricating oils and other high-boiling petroleum fractions, B., 612.
- Saalmann, L. See Hessenland, M.
- Saastamoinen, S. See Virtanen, A. I.
- Sabatier, P., catalysis, A., 1127.
- Sabatucci, N., toxic action and elimination of nicotine. I. Toxic action of nicotine and oxynicotine. II. Elimination and cutaneous absorption of nicotine and caffeine, A., 421.
- Sabbah, C. A. See Brit. Thomson-Houston Co.
- Sabetay, S., alkoxy-acids and their esters, A., 376. Antimony trichloride as reagent for the ethylenic linking, A., 1138. Colour reaction of geranium essence and commercial rhodinols, B., 652. Colour reaction of geranium oil and commercial rhodinol, B., 1084.
- Palfray, L., and Sontag, (Mlle.) D., analysis of cumen essence, B., 684.  
See also Bornand, L., and Palfray, L.
- Sabin, A. B., purification and concentration of the virus of poliomyelitis, A., 97.
- Sabin, A. H., and Titanium Pigment Co., Inc., [zinc-free titanox] paint, (P.), B., 30.
- Sabin, F. R. See Smithburn, K. C.
- Sabinina, L. E., conductivity and viscosity of aqueous glycerol solutions of sulphuric acid, A., 230. Electrochemistry of ethereal solutions. XI. Viscosity of the system sulphuric acid-ethyl ether, A., 770.
- Sabot, R. C., granulite containing riebeckite and a calcareous detrital rock in the Niari basin (French Congo), A., 691.
- Sabrodina, K. See Rutovski, B. N.
- Sacchetti, M. See Parisi, E.
- Sachanen. See Sachanov.
- Sachanov, A., composition of petroleum, B., 452.  
and Tarassov, B. K., hydrogenation of petroleum products (without cracking), B., 50.  
and Tiliatchev, M. D., hydrogenation of petroleum products under pressure, B., 212.
- Zherdeva, L. G., and Polyanskaia, G. B., bright stocks from Grozni mixed-base crude oil, B., 137.
- Sacher, J. F., slate powder as filler in the rubber industry, B., 239. RAL-method for analysis of red lead, B., 977.
- Sachs, A., Levine, V. E., and Appelsis, A., iron in human blood, A., 1182.
- Sachs, A. P., and Petroleum Conversion Corp., preventing corrosion by sulphur compounds during conversion of hydrocarbons, (P.), B., 580.  
See also Beardsley, E. W.
- Sachs, B., and Kafowi, J., [heat treatment of] alloys containing tin and copper, (P.), B., 272.
- Sachs, (Mlle.) D., measurement of ultraviolet radiation intensity. I. Photochemical formation of molybdenum blue, A., 132.
- Sachs, G. See Burkhardt, A.
- Sachs, W. H. See Cumings, G. A.
- Sachse, H., ferromagnetism of ferric oxide, A., 557.  
See also Le Blanc, M.
- Sachsse, H. See Farkas, L.
- Sachsse, M. See Honcamp, F., and Scheunert, A.
- Sachtleben, R. See Hönigsmid, O.
- "Sachtleben" Akt.-Ges. für Bergbau & Chemische Industrie, pure barium compounds, (P.), B., 385.
- Sack, A., does menstrual blood contain growth-hormones or auxins as well as the supposed menotoxins? A., 1211.
- Sack, H. See Debye, P.
- Sackett, W. G. See Stewart, Laura C.
- Sacristán, J. M., and Peraita, M., bromine of blood in manic depressive psychoses, A., 973.
- Sadler, H. See Noss, F., and Suida, H.
- Sadler, W., and Eagles, B. A., cheese-ripening studies. I. Nitrogen requirements of the lactic acid bacteria, A., 867.
- Eagles, B. A., and Pendray, G., cheese-ripening studies. II. Nitrogen requirements of the lactic acid bacteria, B., 204.  
See also Eagles, B. A.
- Sadov, F. I., and Sterlov, P. V., fire-proofing of fabrics, B., 144.
- Sadler, H. S., transfer [sheet for ornamentation of fabrics], (P.), B., 545.
- Sadtler, S. S. See Hepburn, D. M.
- Saeger, A., manganese and the growth of Lemnaceae, A., 649.
- Saeger, C. M., jun., core or mould binder, coating, or paste, (P.), B., 834, 924.  
and Ash, E. J., volume changes of cast iron during casting, B., 108.
- Saegusa, E. See Otsuka, E.
- Saegusa, H., and Nakamura, Kiyosi, dielectric constant. I. Variation of dielectric constant of quartz with applied potential, A., 8.
- Saeki, K., photodynamic hemolytic action of bilirubin. I.—IV., A., 524.
- Sämmer, J. J., gas breakdown at normal pressure, A., 881.
- Saenger, H. See Pinkard, F. W.
- Saenger, H. H. See Berl, E.
- Sänger, R., frequency dependence of superconductivity and ferromagnetism, A., 1005.  
Steiger, O., and Gächter, K., temperature effect of molecular polarisation of gases and vapours, A., 337.
- Sängewald, R. See Weissberger, A.
- Saenko, J. I. See Benin, G. S., and Mintz, I. B.
- Säureschutz Ges.m.b.H., articles from synthetic resin compounds, (P.), B., 277.
- Safety Fumigant Co. See Houghton, H. W.
- Safety Mining Co. See Karstrom, O. E., and Lubelsky, B. L.
- Safford, M. M. See Brit. Thomson-Houston Co.
- Safronova, V. M., and Yaroshevskaja, E. K., coagulation and bacteriological purification of sewage waters from bathing and laundry concerns, B., 286.
- Sagaidatschni, A. F., and Ravitsch, M. I., purification of brine for electrolysis, B., 747.
- Sagalatov, V. V., substitution of leadless glazes for lead glazes, B., 786.
- Sagastume, C. A., lactobacteria, A., 867.
- Sage, B. H., measurement of viscosities of liquids saturated with gases at high pressures, A., 926.
- Sage, C. E., and Fleck, H. R., determination of *m*- and *o*-cresols, B., 101.
- Sage, R. A. See Lierle, D. M.
- Sagel, H. See Wertyporoch, E.
- Sager, F., influence of cracking conditions on composition and reactivity of the cracked benzene, B., 452.
- Sagortschev, B. See Karaoglanov, Z.
- Sagui, C. L., and Jourdan, A., genesis of colloidal pyrrhotite and other minerals in the Bottino mine, A., 692.
- Sah, P. P. T., Chinese citrus fruits. I. Vitamin-A and -B in the peel of Fu Chü (Chinese tangerine), A., 755. Starch iodide colour reaction and its application to quantitative analysis, A., 1023. Reaction of imino-ether hydrochlorides with alcohols, A., 1033.
- and Chen, C. S., sulphur and cystine content of egg-membrane of Chinese hens, A., 411.
- and Hsia, C. T., styphnamic acid, A., 1046.
- and Hsiung, S. Y., Chinese citrus fruits. II. Analysis of the edible portion of Fu Chü (Chinese tangerine), A., 1093.
- and Lei, H. H., hydrazines. II. *p*-Tolylhydrazine as a reagent for the identification of aldehydes and ketones, A., 964.
- Lei, H. H., and Shen, T., hydrazines. III. *p*-Chlorophenylhydrazine as a reagent for the identification of aldehydes and ketones, A., 964.
- Lei, H. H., and Wang, T. H., nitration of benzo-trichloride, A., 1048.
- and Li, T. W., Chinese "dragon eyes," A., 438.
- and Ma, T. S., mixed esters of orthoformic acid, A., 488. Hydrazines. I. *o*-Tolylhydrazine as reagent for aldehydes and ketones, A., 498. 1-Nitroanthraquinone-2-carboxylic acid as a reagent for alcohols, A., 1033.
- Ma, T. S., and Lei, H. H., phenolic acids. III. Esters of aspirin, A., 948.
- Ma, T. S., and Ma, S. Y., Chinese silks. I. Glycine, alanine, and tyrosine contents of Chekiang silk, A., 737.
- Ping, K., Ma, T. S., and Chow, J., Chinese peanuts and peanut oils, A., 438.
- and Yen, J. Y., phenolic acids. II. Condensation of  $\beta$ -resorcylic acid with phthalic anhydride, A., 503.  
See also Lei, H. H., and Ma, T. S.
- Saha, M. N., spectroscopy in the service of chemistry, A., 661.
- and Deb, S. C., colours of inorganic salts, A., 111.
- and Sharma, R. S., interpretation of X-ray term values, A., 115.  
See also Datta, A. K.
- Sahashi, K. See Inoue, Y.
- Sahashi, Y., nutritive value of sperm- and finback-whale oils, A., 630. Physiological actions of the ether-soluble substances of polished rice, A., 630. Ether-soluble substances in polished rice and their physiological action, A., 1093.  
See also Takeuchi, K.
- Sahasrabudhe, D. L., formation of oil in niger seed (*Guizotia Abyssinica*), A., 1093. Disintegration of bones, B., 701.
- and Kale, N. P., oil from niger seed (*Guizotia Abyssinica*), B., 197.
- and Kanitkar, N. V., nitrogen recuperation in soils of the Bombay Presidency. III., B., 402.
- Sahlberg, R. K. O., and Aerocrete Corp. of America, cellular concrete, (P.), B., 707.
- Sahyun, M., blood-phosphate, A., 846.
- Saidel, T., and Pavlovski, G., solubilisation of soil materials by the repeated extraction method, B., 118.

- Saillard, E., nitrogen in condensate and molasses, B., 806. Chlorination of [beet-sugar] factory waste water, B., 1088.
- and Saunier, R., conductometric determination of ash in molasses, B., 806. Determination of ash in beet juice by measuring the electric conductivity, B., 840.
- Saïnderichin, N. See Folliet, A.
- Saint, S. J., crystallisation-in-motion of low-purity strikes [massécuites], B., 886. Determination of the supersaturation of sucrose solutions, B., 886.
- St.-Jacques, E. C., roasting or calcination of pulverulent matters, (P.), B., 896. Separation of solid particles held in suspension in gaseous fluids, (P.), B., 993.
- St. John, J. L., Kempf, C., and Bond, L., bone-ash method of determining effectiveness of vitamin-D supplements, A., 543, 1089.
- St. Julian, R. R., and Rose, W. C., relation of the dicarboxylic amino-acids to nutrition, A., 89. Possible interchangeability in nutrition of certain 5-carbon amino-acids, A., 89. Proline and hydroxyproline in nutrition, A., 89.
- St. Pfau, A., lichen constituents. III. Synthesis of hæmatommic acid, A., 503.
- Saito, D., and Okawa, H., nitriding of metals, B., 430.
- Saito, H., anæmia. I. Gas metabolism in muscles in experimental anæmia. II. Lactic acid metabolism in muscle in experimental anæmia. III. Resynthesis of lactic acid in anæmic patients. IV. Colloid-osmotic pressure of the blood in anæmia. V. Thoracic lymph, A., 414, 525.
- Inaba, T., and Takahashi, W., intensity of augmented adrenaline liberation elicited by asphyxiating the non-anæsthetised dog, A., 414.
- and Nakazawa, F., colloid-osmotic pressure of the blood in normal and pathological conditions. VI. Blood and lymph; effect of lymphagogues of the first and second order. VII. Experimental kidney damage, A., 525.
- Saito, J., intermediary metabolism of tryptophan. XV. Influence of tryptophan and of its physiological metabolic products on the development of yeast. XVII. (c) Effect of configuration in indole formation from indolelactic acid by bacteria, A., 308.
- Sajev, P., effect of acidification on productivity of ordinary chernozems, B., 321.
- Sakaguchi, K., production of citric acid by moulds. II. *Penicillium*, A., 96. Production of acids and alcohol by *Aspergillus*. IV. Production of *D*-gluconic acid by *A. oryzae*. V. Conditions of culturing for acid production by *A. oryzae*. VII. Classification of koji moulds by selective fermentation of sugars. VIII. Species of *Aspergillus* and the production of acids, A., 535, 637.
- and Yamaya, J., production of citric acid by moulds. III. Japanese black moulds, A., 637.
- Sakamura, T., and Yanagihara, T., formation of growth-promoting substance by *Aspergillus niger*, A., 197.
- Sakano, T. See Iwasaki, S.
- Sakata, H. See Schichiri, G.
- Sakata, S. See Taketomi, N.
- Sakauchi, M., mechanism of the glycosuria of starvation and of under-nourishment, A., 416.
- Sakei, K., and Maeda, T., affinity of bilirubin for erythrocytes. I.—II. Inhibitory effects. III. Affinity for erythrocytes of various animals, and of jaundiced and normal subjects, A., 524.
- Sakharov, G. L., Sklizkov, S. A., and Vinogradski, S., mechanical properties of chrome-nickel-molybdenum steel, B., 66.
- and Struselba, M. M., comparative investigation of acid and basic open-hearth steels, B., 21.
- Sakharuk, S. A. See Eliseev, A. G.
- Saklatwalla, B. D., and Vanadium Corp. of America, ferro-aluminium-silicon alloy, (P.), B., 195.
- Sakmin, P., freezing gases at low temperatures, A., 1026.
- Sakov, I. See Saslavski, I. I.
- Sakurada, I., viscosity of lyophilic colloids. I. and II., A., 23. Swelling and solution of cellulose esters, A., 125. Relations between the different viscosity formula for lyophilic colloids, A., 673. Kinetics of cellulose reactions, A., 788. Kinetics of the acetylation of cellulose. III., A., 790. Determination of iodine value of cellulose derivatives, A., 812. Influence of particle form and specific volume on the viscosity of lyophilic colloids, A., 901. Viscosity of cellulose esters and acetylcellulose, B., 186.
- and Furukawa, T., primary, secondary, and tertiary cellulose acetates, A., 939.
- and Hutino, K., X-ray study of konnjakumannan, A., 544, 1235. X-Ray fibre-diagram of glucomannan, A., 558. X-Ray investigations of natural and regenerated silks, A., 1108. X-Ray examination of vegetable and imitation parchment papers, B., 620.
- and Kido, I., determination of solvent power of organic liquids for cellulose esters, B., 1049.
- and Shinoda, Y., rate of reaction of cellulose fibres with cuprammonium, A., 788.
- and Shōjino, M., nitration of cellulose fibres, A., 1038.
- and Taniguchi, M., solvation of molecules of glucose penta-acetate and cellobiose octa-acetate in organic liquids, A., 670.
- Sakurai, S., organic photochemistry. IV. Influence of solvent and temperature on light absorption of colour-sensitisers. V. Tautomerides of the "Illuminol R" series, A., 1256.
- Salani, R. See Canneri, G.
- Salant, E. O., and Rosenthal, (Miss) J. E., vibrational isotope effects in polyatomic molecules, A., 204.
- and West, William, absorption bands of hydrogen halides in the liquid state, A., 112.
- Salant, W., and Parkins, W. M., response of the isolated intestine to cocaine and novocaine at different  $p_H$  levels, A., 185.
- Salaúze, M. J., action of aluminium on solutions of metallic salts, A., 133.
- Salciewicz, J. See Swientoslawski, W.
- Saldaña-Dávila, F., climatic and soil characteristics in relation to sugar cane agriculture in Central America, B., 323.
- Saldau, P. J., and Anisimov, N. G., solubility curves of copper in solid aluminium, A., 1007.
- and Danilovitch, M. V., solubility of silicon in solid aluminium at various temperatures, A., 1007.
- and Zamotorin, M., solubility of the compound  $MgZn_2$  in aluminium in the solid state at different temperatures, A., 1007.
- Salem China Co. See McMaster, H. J.
- Salerni, P. M. See Brit. Coal Refining Processes.
- Saletore, S. A. See Hilditch, T. P.
- Salgado, M. L. M., exchangeable bases of East Anglian soils derived from the Jurassic and cretaceous sediments, with special reference to their marine origin, B., 321.
- Salinger, L. A., effect of adjusted  $p_H$  on the extraction of pectin and ash from fruit, B., 122.
- Salipo, M., soap-boiling control, B., 1065.
- Salisbury, E. H. See Imperial Chem. Industries.
- Salkind, J. S., and Solotarev, S., catalytic oxidation of benzene to maleic acid, A., 1152.
- Teterin, V. K., and Ivanova, A., addition of hydrogen to acetylene derivatives. XIX., A., 1273.
- Teterin, V. K., Ivanova, A., and Zacharov, A., preparation of unsymmetrical  $\gamma$ -glycols of the acetylene series and their catalytic hydrogenation, A., 501.
- Vischnjakov, M. N., and Morev, L. N., hydrogenation of acetylene derivatives. XIX. Dependence of direction and course of hydrogenation on the chemical nature of the catalyst, A., 805.
- and Vovsi, B. A., action of acetylene in petroleum cracking gas on copper and brass, B., 948.
- Sallans, H. R. See Larmour, R. K.
- Sallee, W. I., drying apparatus and process, (P.), B., 608.
- Salley, D. J. See Bates, J. R., and Taylor, H. S.
- Salm, S., rust preventers, B., 310. Train oil and its adulterants, B., 974.
- Salmang, H., should the vitreous state be called a fourth state of matter? A., 767. Silica stone material, (P.), B., 270.
- and Planz, N., magnesia and alumina apparatus resistant to slags, B., 387.
- Salminen, A., influence of rain on soil reaction, B., 560.
- Salmoiraghi, E. See Vita, N.
- Salmon, E. S. See Martin, Hubert.
- Salmon, L. G. See Elliott Bros. (London).
- Salmon, M. R. See Wilson, P. W.
- Salmoni, R., aluminous cement. II. and III., B., 388, 670.
- and Schwiete, H. E., setting of aluminous cement, B., 1057.
- Salmony, A., sp. gr. of "dry-ice" [solid carbon dioxide], B., 17. Emulsification of paraffin oil [for skin creams, etc.], B., 213.
- Salomon, A. See Dieterle, H.
- Salomon, G. See Freundlich, H.
- Salomon, H. See Karrer, P.
- Salomon, T., ageing of steam-turbine oils, B., 293. Mechanism of the alteration of mineral oils, B., 949.

- Salstrom, E. J., thermodynamic properties of fused salt solutions. VI. Rubidium bromide in silver bromide. VII. Zinc bromide in lead bromide, A., 23, 466. Free energy of reactions involving the fused chlorides and bromides of lead, zinc, and silver, A., 783.
- See also Hildebrand, J. H.
- Salter, W. T., Farquharson, R. F., and Tibbetts, D. W., calcium and phosphorus metabolism. XIV. Relation of acid-base balance to phosphate balance after ingestion of phosphates. XIX. Effect of diet on urinary acid and ammonia excretion in man, A., 90, 1195.
- Lerman, J., and Means, J. H., calorigenic action of thyroxine polypeptide, A., 986.
- Salvadori, A., nature and value of Bezonoff's reaction for vitamin-C, A., 325.
- Salviam, roads, pavements, etc., (P.), B., 348.
- Salvinien. See Taboury, M. F.
- "Salvis" Akt-Ges. für Nahrungsmittel & Chemische Industrie, production of active silicic acid or active mixed gels of silicic acid with metal hydroxides or metal oxides, or mixed gels of silicic acid with active carbon, (P.), B., 505.
- Salway, A. H. See Rees, H. G.
- Salzar, A. E., cadmium iodide and zinc iodide cells, A., 677.
- Salzmann, G. M. See Taylor, T. C.
- Salzmann, L. See Bergmann, M., and Strauss, F.
- Samaan, K., [pharmacology of] *Ammi visnaga*, A., 632.
- Samaja, T. See Tartarini, G.
- Šamal, J. See Šandera, K.
- Samant, K. M. See Dastur, R. H., and Heilbron, I. M.
- Samaraev, W. N., mitogenetic radiation of blood in experimental hyperthyreosis and in exophthalmic goitre, A., 852.
- Samaras, N. N. T., primary salt effects in reactions in which the substrate is neutral, A., 575.
- Samec, M., plant colloids. XXXIV. Particle sizes of oxidised starches, determined by the osmotic and chemical methods, A., 1117.
- [with Knop, L., Lavrenčič, B., and Premrl, S.], plant colloids. XXXI. Determination of mean particle size of starch substances and starch derivatives, A., 149.
- and Blinc, M., plant colloids. XXXII. Swollen starch. XXXIII. Alteration of starch through oxidising introduction of acid groups, A., 811.
- and Katz, J. R. [with Klemen, R.], physical chemistry of starch and bread-making. XI. Division of starches into groups according to X-ray spectrum and properties of amylopectin, A., 464.
- Samec, V. See Kubelka, V.
- Samish, R. See Cruess, W. V.
- Sammartino, R. See Houssay, B. A.
- Sammartino, U., physiological action of mineral waters. III. Action of hypotonic water on acid-base equilibrium, A., 311. Toxicity of methyl alcohol. I. Comparison with formaldehyde and formic acid on the isolated frog's heart. II. Comparison with formaldehyde and formic acid on the posterior vessels of the frog. III. Minimum delayed [lethal]
- Sammartino, U.—continued.
- intravenous dose of methyl alcohol, formaldehyde, and formic acid. IV. Critical review; mode of action of methyl alcohol, A., 1076. Isomerides of cholesterol and experimental rickets, A., 1088.
- Samoilov, S. See Alâmov, A. G.
- Sampietro, C., and Täufel, K., distinction between aldo- and keto-hexoses by means of the resorcinol reaction, A., 597.
- Sampoon, J., Gonzaga, A. C., and Hayden, C. E., ketones of blood and urine of the cow and ewe in health and disease, A., 1323.
- Sampson, J. M. See Gen. Electric Co.
- Samson, C. See Lewin, G.
- Samson, E. W. See Turner, L. A.
- Samson, T., circulation of liquor in sulphite[-pulp] cooking process, B., 584.
- Samson-Himmelstjerna, H. O. von, dephosphorisation of the steel bath, B., 629.
- Samuel, A. A., thin solid insulating films [on metals], having a high dielectric strength, (P.), B., 313.
- Samuel, J. O., spectroscopy as an aid to coal-seam examination and identification, B., 289. Flocculation of [coal-] washery water that is in continuous use, B., 290.
- Samuel, R., band spectra and dissociation of molecules, A., 336.
- and Despande, A. R. R., absorption spectra of complex salts of Cr, Mn, Ru, Rh, Pd, Re, Os, Ir, and Pt, A., 336.
- Khan, A. A. H., and Ahmad, N., theory of co-ordinative linking. III. Identification of absorption bands of complex salts, A., 1232.
- and Khan, M. J., Raman effect of complex cyanides, A., 886.
- See also Lessheim, H.
- Samuels, H. See Morrell, R. S.
- Samuelsen, S., and Haug, K., determination of  $p_H$  in boiling acid and bleaching liquor, B., 58.
- Samuicas, D., influence of X-rays on formation of crystal nuclei, A., 346.
- Samurac, D., origin, first appearance, and growth of crystal nuclei: influence of H.F. current, A., 891.
- Samwel, P. J. P. See Büchner, E. H.
- Šana, J., adsorption of electrolytes by carbon mixtures, A., 121.
- See also Šplichal, J.
- Sanborn, J. R., parchment-like membranes from cultures of slime-forming micro-organisms, B., 433.
- Sanborn, N. H. See Kohman, E. F.
- Sánchez, J. A., reactions and determination of ephedrine, A., 408. Detection and determination of procaine, B., 332.
- Sánchez, J. V., *Globularia alyoum*, A., 1092.
- Sancho, J., and Moles, E., intensive drying. I. Reaction between ammonia and phosphorus pentoxide, A., 32.
- See also Moles, E.
- Sancho, P. M., Zeeman effect of the terms of Zr I and Zr II, A., 439.
- Sandberg, E. See Haglund, E.
- Sandberg, M., and Holly, O. M., influence of vitamin-B and iodine on calcium and phosphorus metabolism of rabbits with hyperplastic thyroids, A., 324.
- Sandborn, L. T. See Du Pont de Nemours & Co., E. I.
- Sande, D. van der. See Verkade, P. E.
- Sandell, E. B., and Kolthoff, I. M., co-precipitation. III. Water content of calcium oxalate monohydrate, A., 360.
- See also Kolthoff, I. M.
- Sandeman, I., bands due to the hydrogen molecule:  $2p^3\Pi$  bands of hydrogen, A., 1.
- Sander, F., solubility of rosin in benzene, B., 157.
- Sandera, K., constancy of rotatory power of quartz plates, A., 44. Simple quinhydrone electrode, A., 582. Analysis of organic liquids by the conductometric method, A., 844, 1139. Differentiating between refinery and factory molasses, B., 87. Uniform determination of colour in the sugar industry, B., 88. Examination of mechanical properties of bone char in the laboratory, B., 451. Decolorisation of sugar solutions in polarimetry with active carbons, B., 519. Deauration of raw sugar for fodder, B., 807. Crystallisation of sugar, B., 807. Conductometric methods for determination of alkalis in lime and lime-water, B., 962. Clarification of sugar solutions for polarisation, using the wet and dry methods, B., 1076.
- and Mirčev, A., time necessary for solution of pressed and moulded refined sugars, B., 486. Formation of froth in sugar solutions, B., 520.
- and Šamal, J., conductometric determination of the affinity of raw sugar, B., 87.
- See also Staněk, V.
- Sanders, B. H., iron ores at Itabira, Brazil, A., 1031.
- Sanders, F. G. See Barnett, E. de B.
- Sanders, G. E., making insecticides floatable, (P.), B., 46. Bordeaux mixture, B., 565. Dusting powder, (P.), B., 567.
- Sanders, G. P., precipitation of milk proteins by means of trichloroacetic acid, B., 363.
- Sanders, H. G. See Garner, Frank Harold.
- Sanders, J. M., [treatment of] containers for asphalt and analogous bituminous substances, (P.), B., 52.
- Sanders, K. B. See McIntire, W. H.
- Sanders, L. D. See Kalunite Co.
- Sanders, T. D. See Owen, R. E.
- Sandhoff, H., nitrogen balance in static field experiments, B., 1027.
- Sandke, R. See Sielisch, J.
- Sandmeier, E. G., synthetic corundum for jewel bearings, B., 589.
- Sando, C. E. See Markley, K. S.
- Sandor, G., and Rougebief, G., chromogenesis of acid-resistant bacilli; effect of  $[H^+]$ , A., 640.
- See also Basset, J., and Mâchebeuf, M. A.
- Sandrinnelli, R. See Vita, N.
- Sandrock, W. F. See Robertson, A.
- Sandrus, H. J., and Willard, M. L., microchemical identification of caffeine, A., 173.
- Sands, L., and Gary, W. Y., hemicelluloses of mesquite wood, A., 989.
- Sandstedt, R. M., and Blish, M. J., new characterisation of [wheat] gluten proteins, B., 843.
- See also Blish, M. J.
- Sandström, A., X-ray spectrometer for high vacuum with Johann concave crystal, A., 1026.
- and Carlsson, E., preliminary photographs of emission and absorption spectra with bent crystals as transmission gratings, A., 340.

- Sandstrom, C. O., design of heads for tanks and heat exchangers, B., 127.
- Sandstrom, R. V., temperature coefficient of vulcanisation [of rubber]. II. Determination for mixes accelerated with tetramethylthiuram disulphide and a butaldehyde-aniline condensation product, B., 640.
- Sandulesco, G., Tchung, W. W., and Girard, André, female sexual hormones, A., 194.  
See also Girard, André.
- Sane, S. M. See Joshi, Shiam S.
- Sanford, B. See Webster, D. E.
- Sanford, C. R. See Hickman, K. C. D.
- Sanford, E. A. See Curran, J. J.
- Sanford, G. B., treating seed potatoes for control of common scab, B., 518.  
and Marritt, J. W., toxicity of formaldehyde and mercuric chloride solutions to various sizes of sclerotia of *Rizotonia solani*, A., 641.
- Sanford, G. R. See Torrey, B., jun.
- Sanford, R. L., magnetic balance for inspection of austenitic steel, B., 630.
- Sanford, R. T. See Grebe, J. J.
- Sanford Mills. See Senior, J. C.
- Sanfourche, A., properties and constitution of tricalcium phosphate, A., 579.  
and Foet, B., calcium salt of a complex ferriphosphoric acid, A., 40.  
and Henry, J., reactions of superphosphate in soil, B., 561.  
and Portevin, A., peculiar mode of corrosion of chromium-nickel austenitic steels, B., 22.
- Sangirardi, V., modification in the lipin content of the central nervous system in the convulsive state, A., 1077.
- Sanielevici, A., adiabatic, non-isothermal micro-calorimeter for study of thermal effects of radioactive substances, A., 1264.
- Sanin, P. I. See Nametkin, S. S.
- Sanitation Holding Corporation. See Battistella, F. C.
- Sankaran, G. See McCarrison, G.
- Sankowsky, N. A. See Standard Oil Development Co.
- Sanna, A., diminution in the amount of alkaloids in *Polygonum amphibium* owing to the protective action of water, A., 653.
- Sanna, G., unsaturated diketones of the indole series, A., 73. Polyhalogenated ketones. III. Pyrrole, A., 1169.  
See also Puxeddu, E.
- Sannicé, C., and Trnhaut, R., mercurio-reductive power of amino-acids, A., 292.  
See also Verne, J.
- Sano, M., manufacture of cast iron in the electric furnace, B., 672.
- Sanroma, D. See Robinson, R.
- Sansbury, W. E. See Barstow, E.
- Sant, G., [optical] rotation of blood-serum before and after hydrolysis and its clinical significance, A., 627. Essential difference between the protein degradation by depletion of reserves and a temporary degradation through ingestion. I and II., A., 1324.
- Santa Cruz Portland Cement Co. See Rice, Edward W.
- Santenoise, D., Merklen, L., Morelle, E., and Vidacovitch, M., reduction of blood-pressure by vagotonin and other pancreatic extracts not containing insulin, A., 1210.  
and Penau, H., preparation of vagotonin, A., 319.
- Santesson, C. G., solubility of metallic sulphides in minced organs, A., 91. [Administration of] copper. II., A., 91.
- Santo, J. M. See Hoermann, F. E.
- Santos, A. C., and Reyes, F. R., alkaloids of *Artabotrys*. I. Artabotrin and suaveolin, A., 1217.  
See also Castro, E. R.
- Santos, J. A., and West, J., method of taking X-ray photographs of crystalline powders at the temperature of liquid air, A., 925.
- Sanz, M. C., use of the slide rule in calculating hydrogen-ion concentration and  $pH$  values, A., 690.
- Saotome, S. See Nakashima, T.
- Saper, P. G., rotational analysis of ultraviolet bands of silicon monoxide, A., 111. Band spectrum of bismuth chloride, A., 207.
- Saggir, I., and Davidovskaja, V. L., purification of zinc sulphate solution, and increase of stability to light of lithopone prepared from it, B., 747.  
Rassudova, N., and Kvitner, F., relationships of technical importance between physical structures and colours of lead chromate and lead sulphate chromate, B., 463.
- Saggir, S. See Erculisse, P.
- Saggirs, S. See Purdon, A.
- Sappington, C. N. See Gross, W. F.
- Saran, W., static and vibration strength of sand-cast light-metal alloys, B., 23.
- Sardá, M., adrenal cortex hormone and cholesterol in blood and tissues, A., 1336.
- Sargent, B. W., upper limit of energy in the  $\beta$ -ray spectrum of actinium-B, A., 204. Energy distribution of  $\beta$ -rays from atoms of known age, A., 334. Maximum energy of  $\beta$ -rays from uranium-X and other bodies, A., 443.  
and O'Leary, A. J., scattering of  $\beta$ -rays. I., A., 334.
- Sargent, G. W., and Davey, W. P., convenient laboratory source of hydrogen, A., 249.
- Sargent, J. D. See Packer, J.
- Sargent, L. E. See Standard Oil Development Co.
- Sarjant, R. J., factors affecting furnace practice, B., 367.
- Sarkar, P. B., jute-lignin. II. Potassium hydroxide fusion of lignin, A., 1050.  
See also Rây, (Sir) P. C.
- Sarluy, A., change of solvation medium in gelatin sols, A., 350.
- Sartorius, F., new division of the weights [in a box of analytical weights], A., 250.
- Sarver, L. A., volumetric determination of cobalt by means of ferrous sulphate and potassium dichromate, A., 924.
- Sarzana, G., gaseous exchange in pigeons in avitaminosis [ $B_1$ ]; action of pilocarpine on this exchange in avitaminosis, A., 1090.
- Sasaki, K., relationship between internal secretions and sodium chloride content of bile, A., 84.
- Sasaki, Kaneiku, organic bases in germinated soya beans, A., 990.
- Sasaki, T., comparison of the body constituents of parasite and host. II. Electrometric titration of extracts of *Balaninus dentipes*, A., 177. Effect of carbamide on quinhedrone electrodes, A., 231. Parasitism of *Cuscuta chinensis*, A., 1094.
- Saslavski, I. I., Astascheva, A., and Sakov, I., [molecular] volumes of oxides and chlorides, and atomic volume curves, A., 210.
- Sass, H. See Riesenfeld, E. H.
- Sastri, B. N. See Iyer, C. R. H., and Rao, Y. V. S.
- Sastry, M. S. See Guthrie, A.
- Sata, N., and Kurano, K., measurement of surface tension of liquids by the parallel-plate method, A., 1266.
- Satava, J., and Räch, P., trihexosan and dextrinose in beer, B., 935.
- Satke, O., and Thums, K., salvarsan and blood-bilirubin, A., 91.
- Sato, A., and Yoshimatsu, S., detoxicating hormone of the liver [yakriton]. XXXII. Difference of detoxicating mechanism by yakriton in ammonia and phenol poisoning, A., 195.
- Sato, J., and Timikawa, S., composition of matter; [wood substitute], (P.), B., 629.  
See also Koyanagi, K.
- Sato, Masakazu, and Murata, Kiichi, manganese content of milk, A., 300. Micro-determination of calcium in milk, A., 1187. Determination of creatinine and creatine in milk, B., 730.
- Satô, Mizuhô, influence of convection on Brownian motion. I.—III., A., 460, 901, 1115, 1243. Demonstration of the Brownian movement, A., 1243.
- Satô, S., effect of "facing" on cooling velocity of a specimen [of cutlery steel] during quenching, B., 348.
- Sato, T., leech method of blood analysis. I. Cholesterol, A., 175. Detoxicating hormone of the liver [yakriton]. XXXIV. Counteracting effect of yakriton on the anticoagulant heparin, A., 195.  
See also Hayashi, I.
- Satoh, S., iron nitrides, A., 27.
- Sattler, H. W. See Leuchs, H.
- Sauchelli, V., flotation sulphur in agriculture, B., 440.
- Saucine, L. I. See Candea, C.
- Sauer, E., effect of ageing on viscosity of glue, B., 482. Accuracy of determination of viscosity of glue, B., 482. Determination of jelly strength of glue and gelatin, B., 724.
- Sauer, F. See Demeter, K. J.
- Sauerwald, F., internal friction of molten metals and alloys. V. Flow-viscosimeter with constant pressure for substances with high surface tension, A., 249. Recrystallisation phenomena in synthetic metallic bodies, A., 767. Chemical law of mass action for concentrated non-ideal solutions, A., 904.  
and Fleischer, F., heats of mixing of liquid Fe-Ni-C alloys, A., 1008. Volume changes of iron alloys in the vicinity of the m.p., B., 1059.  
and Globig, W., ratio of softening of deformed metals by recovery and recrystallisation, B., 551.  
and Holub, L., synthetic metal bodies. VII. Crystallisation between surfaces in structural equilibrium, A., 1105.  
and Schmidt, B., surface tension of molten metals and alloys. IV. Alteration with time of the surface tensions and the drop method of measurement at high temperatures, A., 1002.  
and Sossinka, H. G., brittleness, plasticity, and slip elements of  $\alpha$ -iron, B., 629.

- Sauerwald, F., and Teske, W., X-ray investigation of molten metals and alloys. I., A., 341.
- Teske, W., and Lempert, G., many-component systems containing iron. V. Röntgenographic data for the systems Cr-C and Fe-Si-P, A., 220.
- See also Brenner, P., Latta, F., and Sossinka, H. G.
- Sanleau, P. See Velluz, L.
- Saunders, A. See Lewis, R. W.
- Saunders, A. E. See Knoch, C.
- Saunders, B. C., reaction between naphthalene-2-sulphonyl chloride and some thiol compounds, A., 704.
- Saunders, F. See Koser, S. A.
- Saunders, S. W., and Smith, F. Frank, changes in composition of by-products during coking in high-temperature ovens, B., 417.
- Saunderson, H., Johnston, H. W., and Maas, O., penetration during sulphite cooking [of wood], B., 698.
- Saunier, R. See Saillard, E.
- Saurwein, E. M. See Shohl, A. T.
- Sauter, E., X-ray examination of mono- and poly-meric butenesulphones, A., 13.
- Rotation X-ray goniometer diagrams, A., 451.
- Rotation goniometer diagram and the reciprocal lattice, A., 115.
- Evaluation of fibre diagrams, A., 452.
- Universal camera for X-ray crystal structure investigations, A., 480.
- Model of principal valency chain in macromolecular lattice of polyoxymethylenes, A., 666.
- Macromolecular lattice of polyethylene oxide, A., 666.
- Sauter, F., Mott's polarisation effect for scattering of electrons at atoms, A., 994.
- Sauvageot, M., interpretation of tensile tests at high temperatures, B., 872.
- Sauveur, A., and Burns, J. L., method for studying strain-hardening susceptibility and ageing [of steel] after cold-work deformation, B., 230.
- Savage, E. S. See Harrison, E. S.
- Savage, H. E. F., and Wilshaw, R. G. H., geology and soils of an area in the state of Perak, F.M.S., A., 254.
- Savage, J. See Imperial Chem. Industries.
- Savage, W. G., milk pasteurisation as a technical problem, B., 363.
- Effect of pasteurisation on nutritive properties of milk, B., 522.
- Savard, J., ionisation potential and formation of the hydrogen molecule, A., 993.
- Savary, J. See Lecoq, R.
- Savary, J. B. R., yaourt [yoghurt] or similar milk preparations, (P.), B., 283.
- Savel, P., radiation excited by  $\alpha$ -particles in fluorine, A., 659.
- See also Curie, (Mme.) Marie.
- Saveljev, A. O. See Petrov, A. D.
- Savelsberg, W., modern tin refining, B., 194.
- Savino, E., purification of antitoxic sera in order to avoid serum shock, A., 735.
- Savitzka, H. P. See Krontovski, A. A.
- Savtschenko, P. S. See Tananay, N. A.
- Sawada, M., relation between alimentary hypoglycæmia, "Staub effect," and various sugars, A., 528.
- Sawyer, J. H., jun., secondary and tertiary particles produced by cosmic rays, A., 996.
- Sawyer, R. A., and Thomson, K., deepest term in the Au II spectrum, A., 440.
- See also Olthoff, J.
- Sawyer, R. W. See Craig, E. C.
- Sawyer, W. A. See Holmes, A. D.
- Saxholm, K. See Dietzel, R.
- Saxton, B., and Langer, T. W., ionisation constant of monochloroacetic acid, at 25°, from conductance measurements, A., 1118.
- See also Skau, E. L.
- Sayago, G., and Del Villar, I., cholesterol in tuberculosis, A., 87.
- Sayles, B. J., Schultz, H., and Calorizing Co., carburising box, (P.), B., 712.
- Saylor, C. P. See Ashton, F. W., and Smith, W. H.
- Saylor, J. H. See Gross, P. M.
- Sayre, C. B., effects of fertilisers and rotation on earliness and total yields of tomatoes, B., 440.
- Saywell, L. G., effect of figs and small amounts of raisins on urinary acidity, A., 178.
- and Cruess, W. V., composition of Californian tomatoes, B., 409.
- Composition of canning tomatoes, B., 1082.
- and Lane, E. W., comparative effect of tomato and orange juices on urinary acidity, A., 1194.
- and Robertson, D. P., carbohydrate content of tomato fruit, A., 328.
- Sazerac, R., and Pouzergues, J., detection of small quantities of bismuth with 8-hydroxyquinoline, A., 139.
- Sburlati, A. See Durio, E.
- Scaff, J. H., and Schumacher, E. E., theoretical and practical aspects of gases in metals, B., 232.
- Scafile, F., composition of the magnetite contained in the basalt of Aci Trezza (Catania), A., 588.
- Scagliarini, G., and Gentile, F., decomposition products of potassium thionitroprusside, A., 685.
- Scaglioni, C., alcohol-extractable substances of rice and vitaminotic conditions, A., 1339.
- Scandellari, G. See Rossi, G.
- Scarseth, G. D. See Davis, F. L.
- Schaack, E. See Czakó, E.
- Schaad, R. E. See Egloff, G.
- Schaafsma, A., spectrum of barium hydride, A., 760.
- See also Kronig, R. de L.
- Schaafsma, N. D. R., purification of water with active charcoal, B., 1038.
- Schaarschmidt, A., production of products [ketones and aldehydes] from aliphatic or alicyclic hydrocarbons, and hydrocarbon mixtures, containing at least one tertiary carbon atom, (P.), B., 457.
- Hofmeier, H., and Nowak, P., application of adsorbents for rendering tobacco smoke non-toxic, B., 92.
- and Marder, M., reactivity of aliphatic and alicyclic hydrocarbons, A., 370.
- Synthetic benzene from water-gas, B., 49.
- and Nowak, P., [use of] nitric acid for decomposing wood, B., 12.
- Schaarwächter, C., masked hydrogen sickness of brittle copper wires, B., 66.
- Schablikin, P., and Galahitskaja, K., determination of plasticity of clays, kaolins, and other plastic materials, B., 307.
- Schacherl, F., reduction of zinc oxide by hydrogen, A., 28.
- Schachova, Z. F. See Priansohnikov, A. A.
- Schachowsky, T. See Briegleb, G.
- Schacht, E. C., and Behr-Manning Corp., paper, (P.), B., 826.
- Schachter, R. J. See Gerard, R. W.
- Schachtschabel, P., effect of calcium sulphate compounds on ground [cement] clinker. I., B., 269.
- Setting time of Portland cement, B., 829.
- Schackmann, H., and Krings, W., equilibria between metals and slags in melts. IV. Equilibrium  $5\text{FeO} + 2\text{P} \rightleftharpoons \text{P}_2\text{O}_5 + 5\text{Fe}$ , B., 869.
- Schade, P. F. See Chemieprodukte Ges. m. b. H.
- Sehade, W. See Kruber, O., and Spilker, A.
- Schadendorff, E. See Lieb, H.
- Schadler, J. See Czermak, F.
- Schäfer, E., heavy oil as motor fuel for aviation, B., 498.
- Schaefer, F., and Duffendaek, O. S., electrodes for gaseous-conduction lamps, (P.), B., 594.
- Schäfer, G. See Meisenheimer, J.
- Schaefer, H., measurement of polarisation in skin, A., 978.
- Schaefer, J., regenerative coke oven, (P.), B., 419.
- Schäfer, K. See Glocker, R.
- Schäfer, Karl, effect of a deformation (pulverisation) on the superstructure lines and lattice constant of an iron-aluminium alloy, A., 455.
- See also Nestle, R.
- Schaefer, W. E. See Baxter, G. P.
- Schäffner, A. See Calvery, H. O., and Waldschmidt-Leitz, E.
- Schäffner, W. See Waldschmidt-Leitz, E.
- Schafer, J. See Collin & Co.
- Schaffer, P. S. See Haller, H. L.
- Schaffer-Kircher, V., influence of soil reaction on germination of maize and millet, B., 1027.
- Schaffert, R., form and vibrational frequencies of the nitrogen dioxide molecule, A., 766.
- Schaffhauser, S. See Schläpfer, P.
- Schaffnit, E., and Lüdtké, M., production of toxins by various plant parasites, A., 330.
- and Wilhelm, A. F., effect of cold on differently manured plants and their metabolic physiology, B., 643.
- Schaffnit, K. See Dieterle, M.
- Schafmeister, P. See Houdremont, E.
- Schairer, J. F. See Bowen, N. L.
- Schall, B. M. See Böttger, W.
- Schall, L., glycogen-storing [liver] disease, A., 415.
- Schallamach, A. See Suhrmann, R.
- Schallehn, R. See Handovsky, H.
- Schaller, W. T., refractive indices of bloedite, A., 928.
- and Fairchild, J. G., bavenite, a beryllium mineral pseudomorphous after beryl, from California, A., 141.
- See also Larsen, E. S.
- Schallreuter, W. L. W., gas-filled electric-discharge tubes, (P.), B., 72.
- Vacuum or gas-filled electric-discharge tubes, (P.), B., 353.
- Schalnikov, A. I. See Gen, M. I.
- Schames, L., atomistic conception of space and time, A., 444.
- Schaper, I. See Becker, A.
- Schapiro, J. See Porai-Koschitz, A.
- Schapiro, N., preparation of azines by means of hydrazine hydrochloride, A., 1052.
- Action of oxalyl chloride on the ethers of the cresols, carvacrol, and substituted phenols, A., 1164.
- Schaposchnikov, V. N., acetone-butyl alcohol fermentation, B., 122.
- Manteifel, A. Y., and Chistyakova, F. M., acetone-butyl alcohol fermentation, B., 327.

- Scharf, C. W. See Ingmanson, J. H.
- Scharfnagel, W., cow's milk or human milk? A., 631.
- Scharikova, A. See Waldschmidt-Leitz, E.
- Scharrer, K., determination of phosphoric acid by oxine, A., 878. Kinetics of the reaction of the hydrogen peroxide decomposing property of soil, A., 1018. Catalytic power of soils, B., 242.
- and Schropp, W., potassium-iron antagonism in plants, B., 403. Effect of boron on germination and early growth of cultivated plants in sand and water cultures, B., 518. Sand and water [plant]-culture trials with nickel and cobalt, B., 883. Manurial trials with obole-sandstone, B., 883.
- See also Lunde, G.
- Schaskolski, M., and Schubnikov, A., artificial production of regular crystal intergrowths of potassium alnm, A., 451.
- Schattenstein, A. I., and Monosohn, A. M., determination of mol. wt. of compounds dissolved in liquid ammonia at room temperature, A., 893.
- Schaub, C. See Jaretsky, R.
- Schaum, K. See Liese, K.
- Schaut, G. G., lactose-fermenting organisms in Philadelphia's drinking water, B., 1087.
- Schavargin, A. I. See Nametkin, S. S.
- Schay, G. See Krocák, M.
- Scheda, B., influence of surface tension on hydrometer readings, A., 1136.
- Scheele, W. See Jander, W.
- Scheer, J. van der. See Landsteiner, K.
- Scheer, W. See Broche, H.
- Scheer, Werner, mechanism of the antagonistic action of adrenaline and insulin, A., 1085.
- Schefels, G. See Kofler, F.
- Scheffer, F. E. C., stability of methane, ethane, and carbon monoxide at low temperature, A., 917.
- and Smittenberg, J., binary systems. II. III. Systems with ethane as volatile component, A., 228, 906.
- See also Korvezee, (Mlle.) A. E.
- Scheffer, L., iodine balance in normal men, A., 530.
- Scheffer, T. C. See Lindgren, R. M.
- Scheffers, H. See Meissner, W.
- Scheffan, L. See Olsen, J. C.
- Scheib, W., and Lueg, P., rotation-vibration spectrum of ethylene in the near infra-red, A., 553.
- Scheibe, G., Povenz, F., and Linström, C. F., optical absorption of carbon compounds in Schumann ultra-violet, A., 445.
- Scheiber, J., solubility of rosin in benzene, B., 157. Analysis of oil varnishes, B., 799. Measurement of viscosity of cresols, B., 821.
- and Dux, W., shellac substitute, (P.), B., 1021.
- Scheiber, W. J. See Brit. Thomson-Houston Co.
- Scheibler, H., preparation of keten diethylacetal, A., 259. Metallic compounds of the enolic forms of monocarbonyl compounds. XV. Preparation of keten diethylacetal, A., 377.
- Jeschke, J., and Beiser, W., halogen-substitution products of furfuraldehyde, A., 398. Action of perbenzoic acid on furfuraldehyde diacetate, A., 831.
- Scheibler, H., and Schmidt, Anton, compounds of bivalent carbon. VI. Tri-(carbon monoxide diethylacetal) ethyl alcoholate [heptaethoxypropane] and the course of the "carbon monoxide acetal fission" of ethyl diethoxyacetate, A., 491.
- See also Zondek, B.
- Scheiderer, G. See Fleisohacker, H.
- Scheifele, B. F. H., theory of film formation, A., 1010.
- Scheil, E., non-substituted mixed crystals of iron, A., 562.
- See also Bühler, H., and Ruff, W.
- Scheimpflug, W., freezing of milk and cream, B., 730.
- Scheinkmann, A. I., qualitative analysis with small quantities. III. Analysis of the ammonium sulphide group in presence of phosphate, A., 365. Detection of bismuth in presence of lead and mercury, A., 1264.
- and Politzschuck, A. B., qualitative analysis with small quantities. IV. Detection of alkaline-earth metals, A., 1132.
- Scheka, I. A. See Plotnikov, V. A.
- Schell, C. See Guillemet, R.
- Scheller, E. See Pfleger, J.
- Schelven, T. van, quinoline derivatives, (P.), B., 341.
- Schemensky, W., and Mrugowsky, J., physico-chemical and clinical studies of cholesterol metabolism, A., 414.
- Scheminzky, Fe., and Scheminzky, Fr., galvanotropism of Traube's copper ferrocyanide cells, A., 1010. Behaviour of Traube's cells under influence of the electric current, A., 1011.
- Scheminzky, Fr. See Scheminzky, Fe.
- Schemjakin, F. M., viscosity curves of sols of lyophile colloids, and other curves, A., 779. Morphology of chemical reactions in gels. VI., A., 780. Morphology of chemical reactions in colloidal media. IV., A., 1117. Natural classification of chemical compounds. III., A., 1232.
- Schemmerhorn, L. G. See Nightingale, G. T.
- Sehemp, C. A., concentration of tinct standard silver-lead ore, B., 709.
- Schenck, E. G., influence of proteins, amino-acids and their derivatives on the regulation of blood-sugar. II., A., 734.
- and Kunstmann, H. K., dependence of structure of blood-serum-proteins on metabolic processes, A., 521.
- and Schlüter, H., blood, tissue, and urine-protein in kidney diseases, A., 415.
- and Wollschitt, H., dependence of structure of tissue-proteins on the metabolism of the organs. I. II. Protoplasm damage, hormones, and metabolic products. III. Cystine and tyrosine. IV. Senility and avitaminosis, A., 631, 1328.
- Schenck, H., analysis of secondary radiation from aluminium, nickel, silver, and gold at the entrance and exit of X-rays, A., 656. Indirect determination of ferrous oxide dissolved in liquid open-hearth steel, B., 1011.
- See also Luckemeyer-Hasse, L.
- Schenck, M., bile acids. XXXVII., XXXIX., and XL., A., 274, 713, 1161.
- and Reschke, J., bile acids. XXXVIII. Can the Van Slyke method of amino-nitrogen determination be applied to derivatives of bile acids? A., 609.
- Schenck, R., chemical systems of Lenard phosphors. II., A., 570.
- and Dingmann, T., equilibria in reduction, oxidation, and carbonisation processes in iron. XII., A., 41.
- and Hammerschmidt, F., equilibrium in the systems strontium-sulphur-oxygen and barium-sulphur-oxygen, A., 352. Equilibrium in the system calcium-sulphur-oxygen. II., A., 352.
- and Kortengraber, A., system manganese-nitrogen, A., 351.
- and Pardun, H., chemical systems of Lenard phosphors. I., A., 570.
- and Roters, H., activation of oxides by foreign oxides, A., 471.
- Schenk, D., determination of water and sugar-(extract) contents in marmalades, malt extracts, honey, etc., with particular reference to refractometry, B., 409.
- Schenk, P. W., sulphur monoxide. I., A., 475.
- See also Bodenstein, M., and Cordes, H.
- Scheppach, K. See Barrenscheen, H. K.
- Scheps, M. See Elmer, A. W.
- Scherago, M. See Williams, W. L.
- Schérer, M., magnetic circular dichroism and anomalous magnetic rotatory dispersion in cobalt chloride solutions, A., 10.
- and Gondonnier, R., circular magnetic dichroism of aqueous solutions of cobalt sulphate and nitrate, A., 765.
- See also Cotton, A., and Dupouy, G.
- Scherer, P. C., jun. See Riehter, G. A.
- Schering-Kahlbaum Akt.-Ges., female sexual hormone, (P.), B., 44. Derivatives of chelidamic acid, (P.), B., 53. 3:5-Di-iodo-2- and 4-hydroxypyridine-monocarboxylic acids, (P.), B., 140. Phosphoric acid ester of gluconic acid, (P.), B., 172. Concentration of sexual hormones in body fluids, (P.), B., 173. Metal catalysts, (P.), B., 197. Heavy-metal compounds of thio-substituted carbohydrates, (P.), B., 251. Condensation products [derivatives of  $\beta$ -amino- $\alpha$ -hydroxypropionic acid], (P.), B., 437. Purification of preparations of the male germ gland hormone, (P.), B., 492. Male germ-gland hormone in pure form, (P.), B., 572. Terpenes, (P.), B., 662. Purified germ-gland preparations, (P.), B., 813. Preparation of hormones, (P.), B., 845. Condensation products [anthryridines] from 2:6-diaminopyridine and its derivatives, (P.), B., 906. [Catalysts for] condensation reactions [between carboxylic acids and hydrocarbons, amines, or phenols], (P.), B., 907. Vulcanisation of rubber, (P.), B., 930. Complex double compounds of thio-substituted carbohydrates [thioglucose], (P.), B., 940. 3:4:5-Trisubstituted 1:2:4-triazoles, (P.), B., 988. Complex double compounds of organic heavy-metal mercapto [thiol] compounds, (P.), B., 988.
- and Wilcke, P., sebacic acid dinitrile, (P.), B., 251.
- See also Baensch, W.
- Scheringa, K., systems potassium stearate (palmitate)-alcohol-water; separation of stearic and palmitic acids, A., 19. Detection of chlorine in presence of bromine; a microchemical reaction for silver, A., 242. Solubility of silver thiocyanate in potassium thiocyanate, A., 1020.



- Scheringa, K., sodium cobaltinitrite as a reagent for potassium, A., 1023. Sodium hydrogen tartrate as a reagent for potassium, A., 1024. Must ammonium chloride be added in calcium determinations? A., 1024. Preparation of soap solution for use in determining hardness of water, B., 46.
- Scheringer, W., hyperfunction of the thyroid in pregnancy; effect of adrenaline on blood-iodine in pregnancy, A., 740. See also Bokelmann, O.
- Scherlin, S. M., and Jakubovitch, A. J., arsenic derivatives of organic sulphides. I. sec-Phenyl- $\beta$ -sulphido-alkylarsinic acids of the type,  $\text{SR} \cdot \text{C}_2\text{H}_4 \cdot \text{AsR}' \cdot \text{O} \cdot \text{OH}$ , and their derivatives, A., 962. See also Seide, O. A.
- Scherp, H. W., diffusion coefficient of crystalline trypsin, A., 674.
- Scherrer, E. See Masing, G.
- Scherrer, J. A., rubber beaker rings for accelerating evaporation on steam bath, A., 250.
- Scherrer, W. See Ruzicka, L.
- Seherzer, O., gas concentration of electron beams, A., 701.
- Shestakov, A. G., rôle of calcium in assimilation of iron by plants, A., 649.
- Schetelig, W. See Schlubach, H. H.
- Scheuer, E., sodium content of silumin, B., 871.
- Scheuerman, L. N. See Knipp, C. T.
- Seheunert, A., Reschke, J., Bedi-i-Schakir, and Sachsse, M., fish-meal as a feeding-stuff. V. Vitamin-D content of fish meal, B., 444.
- Reschke, J., and Schieblisch, M., vitamin content of Eviunis (Vitaphos), B., 1083.
- and Schieblisch, M., stability of international standard carotene in solution in oil, A., 986. Determination of vitamin-A expressed in international units, A., 986.
- Schiaparelli, C., use of sulphonated oils in fat-liquoring of chrome leather, B., 598.
- Schibsted, H., and Borden Co., treatment of milk powder, (P.), B., 490.
- Schichiri, G., and Sakata, H., intermediary metabolism of tryptophan. XIV. Is subcutaneously administered tryptophan utilised for nutrition? A., 308.
- Schick, E. See Stollé, R.
- Schick, K., and Zakariás, J., determination of the *S*-value, and exchangeable calcium and magnesium in carbonate-free soils, according to Hissink, by volumetric methods, B., 516.
- Schick, O. See Stollé, R.
- Schicke, W., and Wedekind, E., oleanolic acid (guagenin). III. Oxidation of acetyloleanolic acid and oleanolic acid with chromic acid, A., 612.
- Schicktan, S. T., improved chain-packed distilling column, A., 1135.
- Schidrowitz, P., and Pirelli, Ltd., rubber, (P.), B., 801.
- Schiebl, K., specific heats of sugar and of sugar solutions, B., 486.
- Schieblisch, M., effect of composition of the nutrient medium on production of vitamin-B by bacteria, A., 541. Influence of feeding and condition of milking animals on vitamin content of their milk, A., 626. Toxicity of preparations of irradiated ergosterol, A., 757. Evaluation of vitamin-D preparations. III., A., 1212. See also Scheunert, A.
- Schiebold, E., crystal structure of silicates, A., 369.
- Schiechel, M., and Amer. Lurgi Corp., flotation process, (P.), B., 834.
- Schiedewitz, H., micro-determination of picrolonic acid by means of acridine, A., 408.
- Schiedt, B. See Maurer, K.
- Schiedt, E., solubility of single crystals of gold-silver [alloy], A., 773.
- Schiefelbusch, A. T. See Coons, C. M.
- Schiele, J., electrophoretic effect of the concentration effect, A., 224. Potential effect with strong and weak bases, A., 231.
- Schiemann, G., and Miao, T. B., aromatic compounds of fluorine. XVII. Fluoronitroanisoles, A., 1156.
- and Winkelmüller, W., aromatic compounds of fluorine. XIV. Reaction of *p*-fluorophenylhydrazine; *N*-alkylated fluoroanilines, A., 705. See also Klemm, L.
- Schiener, A., lievrite [ilvaite] from Seriphos, A., 483.
- Schierz, E. R. See Stanfield, K. E.
- Schiffner, H. J., heat-resisting steel alloy, (P.), B., 1063.
- Schiffan, H., biological value of proteins in the nutrition of growing pigs, A., 528.
- Schikorr, G., ferrous hydroxide, and a ferromagnetic ferric hydroxide, A., 581. Rusting of iron with excess of oxygen, B., 750. See also Bauer, O.
- Schilb, T. W. See Moss, H. V., and Warning, W. G.
- Schildknecht, E. See Normann, W.
- Schildwächter, H., course of combustion of hydrocarbon vapour-air mixtures, B., 948.
- Schilf, E. See Dressler, E.
- Schilling, E., and Kopp, G., comparison of adrenaline, sympatol, and ephetonal, A., 868.
- Schimmel & Co., chemical preparations and drugs, B., 491. Essential oils, B., 491. [Essential oil] novelties, B., 491.
- Schimmer, F. See Paine, S. G.
- Schindler, K. See Reichstein, T.
- Schindler, R. See Dolch, M.
- Schinko, G. See Hölzl, F.
- Schinle, R. See Brigl, P.
- Sehntlmeister, J. J. See Pettersson, H.
- Schinz, H. See Ruzicka, L.
- Schirmann, treatment of lactic cultures, B., 681.
- Schirmer, R. E. See Greiner, A.
- Schirokov, N. V. See Smorodincev, I. A.
- Schischakov, N. V., experiments on gasification of Donetz anthracites in the Thiessen gas producer, B., 133. Gasifying the Bokovo-Khrustalni anthracite AK in Thiessen gas producers, B., 496.
- Schischokin, V. P., study of saline solutions, A., 1012.
- and Ageeva, V. A., hardness of low-melting alloys at different temperatures. II. Binary alloys the components of which combine chemically, B., 1062.
- Schittenhelm, A., thyroid problem and iodine metabolism, A., 89.
- and Eisler, B., distribution of iodine in central nervous system of men and animals, A., 523. Iodine excretion in myxedema after continued administration of thyroxine, A., 526. Effect of sensitisation with foreign protein and of anaphylactic shock on
- Schittenhelm, A., and Eisler, B.—continued. blood-iodine, A., 531. Blood-iodine and effect on it of sympathomimetic drugs as influenced by the nervous system and thyroid, A., 531. Effect of narcosis on blood-iodine, A., 532. Effect of thyroxine on glycogen content of cartilage, A., 538. Distribution of iodine in central nervous system after administration of thyroid products, A., 538. Distribution of iodine in central nervous system of thyroidless animals, A., 523.
- Schlachover, M. See Rogovin, S.
- Schlacht, K., soil structure and pan formation with examples from soil maps of the Palatinate, A., 369.
- Schladitz, E. See Lottermoser, A.
- Schlaepfer, H. A. See Bornand, E.
- Schläpfer, P., internal-corrosion phenomena in warm-water boilers and pipes, B., 447. Production and consumption of organic road-making materials in Switzerland, B., 452. New [Swiss] specifications for organic road-surfacing materials, B., 452. Evaluation of gas coals, B., 530.
- and Drotschmann, H., running of automobile engines on suction gas, B., 451.
- and Morcom, A. R., the coking process, B., 531.
- and Rodel, W., comparison of the Hutchinson tar tester and the road-tar consistometer for determining viscosity of road tars, B., 452.
- and Schaffhauser, S., examination and evaluation of carburetting oils, B., 1042. See also Ruzicka, L.
- Schlandt, A. F. See Hyman, J.
- Schlapp, R., and Penney, W. G., influence of crystalline fields on susceptibilities of salts of paramagnetic ions. II. The iron group, especially Ni, Cr, and Co, A., 212.
- Schlecht, L. See Buddenberg, O.
- Schlechtweg, H., plasticity in single crystals, A., 667, 1005. Dependence of elasticity and tensile strength of cast iron on the structure, B., 629.
- Schleede, A. See Rosenblatt, F.
- Schlegel, E., *i-s*-diagram for water up to 400 atm. between 0° and 370°, A., 1238.
- Schleich, H. See Bergmann, M.
- Schleicher, A., qualitative analysis by electrolysis and spectrography, A., 242.
- Schlemmer, F., and Cahnmann, H., effect of metals on vitamin-C content of milk, A., 873.
- Schlempp, G. See Leuchs, H.
- Schlenk, W., free radicals, A., 693.
- Bergmann, O., and Bergmann, E., synthesis in sterol and sexual hormone series, A., 947.
- Schlenk, W., jun., spontaneous motion of spermatozoa and  $\mu\text{H}$ , A., 1199.
- Schlenker, E., graphical method for calculation of boiling points at various pressures, A., 117. Synthetic resins from glycerol and polybasic acids, B., 157.
- Schlenker, F. S., comparison of methods for determining ammonia-nitrogen and their adaptability to plant juice, A., 327. Micro-analysis of plant juice for reducing sugars and sucrose, A., 1217.
- Schlesinger, A. See Durupt, A.
- Schlesinger, H. I., and Hammond, E. S., amines of chromous chloride, A., 1258. See also Burg, A. B., and Thornton, N. V.

- Schlesinger, (Mlle.) I. See Blum, I. L.  
 Schlesinger, M., preparation of purified bacteriophage, A., 1084.  
 See also Bechhold, H.  
 Schless, R., and Pennsylvania Powder Co., [low-density] explosive composition, (P.), B., 989.  
 Schletz, E. See Scholder, R.  
 Schliessmann, O. See Klinger, P.  
 Schlimm, W. See Berkner, F.  
 Schlimgman, P. F. See Kienle, R. H.  
 Schlittler, E., constitution of boldine and synthesis of its *r*-diethyl ether, A., 841.  
 See also Barger, G.  
 Schlitz Beverage Co., J. See Rohde, H. W.  
 Schloemer, A., spatial structure of phosphorescent mixtures, A., 554. Activity of non-pathogenic bacteria utilising mineral matter in the thermal water of Aix-les-Bains and Aix-Burtscheid. I., A., 691. Electric sieve, A., 1027.  
 Schlösser, C. See Schwarz, Karl.  
 Schlötter, M., passivity phenomena in metals, B., 711.  
 and Asoc. de Productores de Yodo de Chili, [electrolytic refining] treatment of gold and silver, (P.), B., 272.  
 Korpiun, J., and Burmeister, W., deposition of copper and silver from iodide solutions, B., 552.  
 Schloss, O. M. See Anderson, A. F.  
 Schlosser, H. A., sweetening-off the filter presses, B., 1076.  
 Schlossmann, A., and Murschhauser, H., gas exchange in new-born and premature infants, A., 972.  
 Schlossmann, H., excretion of veronal and "quadronox," A., 1327.  
 and Grüter, M., sp. gr., dry substance, and nitrogen content of leucocytes, A., 965.  
 Schlots, D. See Smith, F. B.  
 Schlots, F. E., Smith, F. B., and Brown, P. E., *Aspergillus niger* as an indicator of available phosphorus in the soil, B., 679.  
 Schlotterbeck, F. See Stockhausen, H.  
 Schlottmann, F. See Danneel, H.  
 Schlubaeh, H. H., and Knoop, H., natural polyketans. V. Carbohydrates of the Jerusalem artichoke. II., A., 938.  
 Knoop, H., and Liu, M., new structural type of polysaccharides, A., 378.  
 Fructose anhydrides. XII. Constitution of irisin, A., 938.  
 Rauchenberger, W., and Schultze, A., action of acetic anhydride and sulphuric acid on isopropylidenglucose, A., 1145.  
 and Schetelig, W., crystalline  $\beta\beta$ -trehalose (isotrehalose), A., 148.  
 and Vorwerk, J., *l*-sorbosc, A., 1145.  
 and Wagenitz, E., halogenoses of the  $\beta$ -series and their application to synthesis. VII. Crystalline  $\beta$ -acetobromo- $\gamma$ -galactose, A., 148.  
 Schlünz, F. K., microscopical and chemical examination of two clays, A., 1030.  
 Schlüter, H. See Schenck, E. G.  
 Schlumbohm, P., vacuum process for dehydration of substances sensitive to temperature, in particular for manufacture of foodstuffs, feeding-stuffs, and medicines, (P.), B., 249.  
 and Amer. Thermos Bottle Co., distilling apparatus, (P.), B., 897.  
 Schlunpff, J., and Schlunpff & Fils, J., hank dyeing machine, (P.), B., 104.  
 Schlunpff & Fils, J. See Schlunpff, J.  
 Schlundt, H., and United States Radium Corp., production of [radioactive] luminous compound and luminous objects therewith, (P.), B., 506.  
 Schmalfuss, Hans [with Barthmeyer, H., and Werner, H.], fish-meal as a feeding-stuff. VI. Age of fish-meal fat in regard to fat nutrition, B., 444.  
 and Fischer, G. [with Möring, W.], substances formed in decay of dental pulp (gangrene). I., A., 1070.  
 Heider, A., and Winkelman, K., 3:4-dihydroxyphenylacetic acid as precursor of the pigment in the wing covers of the meal-worm insect, *Tenebrio molitor*, L., A., 298. *l*-Tyrosine from *Vicia faba*, L., A., 652. Free *l*-tyrosine from human skin, a pigment precursor, A., 968.  
 Schmalfuss, Helene, Heise, I., Käsler, R., and Haessler, H., discordant behaviour of accelerators, e.g., of the darkening [of pigment precursors], A., 968.  
 and Werner, H., detection and determination of special oils [added to edible fats], B., 27.  
 Werner, H., and Gehrke, A., development of ketone rancidity in fats, fatty acids, and soaps, (P.), B., 555.  
 Werner, H., and Kraul, R., detection of oxalic acid in urinary calculi, A., 1189.  
 See also Mulzer, P.  
 Schmalfuss, Helene. See Schmalfuss, Hans.  
 Schmalfuss, K., protein metabolism of potash-deficient plants, A., 545. Potash [and plant life], A., 649.  
 Schmanekov, I. V., and Blashennova, A. N., elimination of sulphur from metallurgical coke. III., B., 900.  
 Schmatolla, O., ageing of cresol soap solution and aluminium acetate, B., 987.  
 Schmauser, J., possible applications of siemensite [refractory] in the chemical industry, B., 387.  
 Schmechel, S. See Berg, P.  
 Schmeiser, H. See Hüttig, G. F.  
 Schmelkes, F. C., oxidation potential concept of [water] chlorination, B., 606.  
 See also Baker, J. C.  
 Schmerl, detection of urea in the normal and pathologically modified optic lens, A., 298.  
 Schmid, A., and De Senarcens, G., explanation of polymerisation of resols from refractometric measurements, B., 316.  
 and Vögele, P., potential [at metallic electrodes] in electrolytes with foreign ions. V. The halogen electrode, A., 677.  
 Vögele, P., and Winkelman, W., potential [at metallic electrodes] in electrolytes with foreign ions. II.—IV., and VI., A., 28, 354, 677.  
 Schmid, E., and Seliger, H., binary mixed crystals of magnesium, A., 771.  
 and Siebel, G., mixed crystal formation with single and polycrystalline materials, A., 1110. Extensibility of ternary mixed crystals of magnesium, B., 511.  
 and Wassermann, G., does a compound  $\text{Al}_2\text{Zn}$  exist? A., 219. X-Ray examination of electrolytically oxidised aluminium, B., 194.  
 See also Obinata, I.  
 Schmid, F., paints, enamels, etc., and drying oils therefor, (P.), B., 78. Livering and settling of enamels, B., 436. High-opacity, non-fattening, zinc-white paints, B., 836. Determination of degree of dispersion of pigments and finely-divided substances by mechanical and optical methods, B., 977.  
 Schmid, G., osmotic equilibrium of Congo-red at various membranes, A., 776.  
 Schmid, H. (Wien). See Abel, E.  
 Schmid, Hans (München), rhenium. I. Potassium rhenichloride and organic derivatives of quadrivalent rhenium, A., 685.  
 See also Manchot, W.  
 Schmid, Hermann, and Gastinger, E., spectrophotometry of short-lived intermediate products, A., 997.  
 Schmid, J. See Dubois, E.  
 Schmid, K., continuous mutual reaction of liquids, (P.), B., 657.  
 Schmid, L., and Erdős, A., amber, A., 831.  
 and Haschek, L., dye of yellow dahlias, A., 1168.  
 and Tadros, F., constitution of the dye of *Robinia pseudacacia*, A., 72.  
 Schmid, R., photo-electric emission in a magnetic field, A., 441. Structure and Zeeman effect of the  $\text{CO}_2$  emission doublet band at 2900 Å., A., 884. 3600 Å. doublet band of the carbon dioxide spectrum, A., 997. Doubling and staggering in simple emission bands of the carbon dioxide spectrum, A., 1102.  
 Schmid, R. F., rotational analysis of first negative bands of the  $\text{CO}^+$  molecule, A., 6. Zeeman effect of the third positive carbon bands, A., 1095. Excitation of the carbon dioxide emission spectrum in a Back box, A., 1102.  
 Schmid, W., alkali recovery and arrangements of soda furnaces [for pulp manufacture], B., 459. Regeneration and re-use of causticising slurry [from pulp manufacture], B., 1002.  
 Schmidt, A., immunisation of human beings against diphtheria with purified diphtheria anatoxin and aluminium hydroxide, A., 984.  
 Schmidt, Albert, theory of pressure impulse in gases and the detonation wave, B., 252. Detonation of explosives, B., 1086.  
 and Becker, F., heat of formation of nitrocellulose, nitroglycerin, and other constituents of propellant powders, B., 1086.  
 Schmidt, Anton. See Scheibler, H.  
 Schmidt, A. A., and Derankova, E., pituitary sexual hormone, A., 194.  
 Schmidt, A. W., methyl alcohol as addendum to liquid fuel, B., 995.  
 and Müller, W., German crude [petroleum] oils, B., 135.  
 See also Hofmann, F.  
 Schmidt, B. See Sauerwald, F., and Sossinka, H. G.  
 Schmidt, C. L. See Greaves, Joseph D.  
 Schmidt, C. L. A. See Miyamoto, Sadaichi.  
 Schmidt, E., automatic second carbonation, B., 807.  
 Schmidt, Erich, chain-length of native cellulose and of acetylxytan from deciduous trees, A., 261.  
 Schnegg, R., and Hecker, M., decarboxylation of celluloses of natural composition, A., 493.  
 Schmidt, Ern. See Kalinor, C.

- Schmidt, *Ernst*, measurement of the total radiation of water vapour at temperatures up to 1000°, A., 17.  
and Sellschopp, W., thermal conductivity of water at temperatures up to 270°, A., 1005.
- Schmidt, *E. H.* See Metger, J. E.
- Schmidt, *E. K. O.*, determination of adhesive capacity of paint and varnish films, B., 836.
- Schmidt, *E. W.*, localisation of tyrosinase in sugar beet, A., 105. Pathological fat-formation in sugar-beet leaves, A., 330. Sensitive reaction of root of sugar-beet seedlings as sign of protoplasmic injury, B., 403.  
and Feistritz, W., foot-rot of cereals and its control, B., 1028.
- Schmidt, *E. X.*, and Cutler-Hammer, Inc., method and means in calorimeter for burning gases of relatively low heating value, (P.), B., 499.
- Schmidt, *F.*, raising the impact bending strength of acetylcellulose masses, moulded by injection, (P.), B., 514.
- Schmidt, *G.*, micro-determinations of purine substances in tissues. II. Guanine, adenine, and hydroxypurines, A., 1218.
- Schmidt, *H.*, and Winthrop Chem. Co., metal complex compound[s]; [medicinals], (P.), B., 1085.
- Schmidt, *H. W.* See Harteck, P.
- Schmidt, *I.*, and Lagneau, E., digestibility experiments on pigs with lucerne hay meals differently ground, B., 364.
- Schmidt, *J.* (Freiburg). See Janssen, S.
- Schmidt, *Jonas*, feeding of iodine to poultry, A., 1196.
- Lagneau, *M. F. von*, and Zimmermann, C., digestive power of, and nitrogen retention by, four types of pigs, A., 743.
- Lauprecht, *E.*, and Winzenburger, W., rationing of lowland cows, B., 730.
- Schmidt, *Jürgen*, and Neumann, B., methane-carbon dioxide and carbon monoxide-hydrogen equilibrium, A., 25.
- Schmidt, *Julius*, and Eitel, M., detection of blood by 2:7-diaminofluorene hydrochloride, A., 293.
- Schmidt, *J. E.* See Carr, C. J.
- Schmidt, *K.*, and Amer. Glanzstoff Corp., [spun] filament treatment [for production of even-shrinkage yarn], (P.), B., 1005.
- Schmidt, *M.* See Reinhold, J.
- Schmidt, *Max*, and Jungwirth, O., red-shortness of austenitic steels, B., 708.
- Schmidt, *O.* See Rademacher, B.
- Schmidt, *O.* (Beuthen). See Vilter, F. W.
- Schmidt, *Otto* (Breslau), detection of extractable poisons by freezing, A., 1198.
- Schmidt, *Otto* (Ludwigshafen), hydrogenation catalysts, A., 680. Reaction mechanism. V. Active centres of typical hydrogenation catalyst. VI. What elements catalyse hydrogenation? A., 912, 913. Problems of technical reactions. I. Catalytic hydrogenation, B., 944.
- Schmidt, *Richard*, purification of boiler feed-water, B., 447.
- Schmidt, *Robert*, quenching structures of steel: sorbitic and troostitic, B., 831.
- Schmidt, *Rolf*. See Evers, F.
- Schmidt, *S.*, action of aliphatic and aromatic compounds on diphtheria toxin, A., 191. Action of organic compounds on diphtheria toxin, A., 318. Toxicity of toxins after treatment with aluminium hydroxide or tapioca, A., 429.
- Schmidt, *S.*, action of formaldehyde on diphtheria toxin. I. Significance of formaldehyde concentration, temperature, and  $pH$  in the production of anatoxin, A., 1207.
- Schmidt, *W.* (Königsberg). See Nehring, K.
- Schmidt, *Waller*, mineral and nitrogen metabolism of hens receiving varied diets, A., 631.
- Schmidt, *Wilhelm*. See Heiduschka, A.
- Schmidt, *Willi*. See Meisenheimer, J.
- Schmidt, *Winfried*. See Köster, W.
- Schmidt, *Wolf*. See Meyer, O.
- Schmidt Ges.m.b.H., K., removing oxides and gases from molten aluminium and its alloys, (P.), B., 395. Tilttable reverberatory furnace, (P.), B., 673.
- Schmidt-Hebbel, *H.*, electro-catalytic detection of mercury in forensic chemistry, A., 312. Capillary analysis as an aid to evaluation of fluid extracts, B., 44.
- Schmidt-Nielsen, *S.*, Flood, A., and Stene, J., decrease in vitamin-A produced by heat treatment of milk, A., 870.
- Schmieschek, *U.*, action of various substances on unsensitised, orthochromatic, and panchromatic emulsions, B., 525.
- Schminke, *K. H.* See Gucker, F. T., jun.
- Schmitt, *P.* See Clemenccon, C.
- Schmitt, *B.* See Berl, E.
- Schmitt, *L.*, action of magnesium ions on calcium-deficient mineral soils, B., 561.
- Schmitt, *N.*, increasing the activity of plant materials containing rotenone, B., 1074.
- Schmitt, *O.* See Foerster, F.
- Schmitt, *V.* See Bertho, A.
- Schmitz, A., and Fischer, A., action of heparin on serum-albumin, A., 522. Chemical nature of heparin. II. Preparation of pure heparin. III. Constitution of heparin, A., 698.  
See also Fischer, A.
- Schmitz, *E.*, influence of chlorate, iodate, perchlorate, and periodate on germination and early development of cultivated plants, B., 518.
- Schmitz, *Ernst*, and Hilgetag, G., a constituent of adrenal cortex, A., 1067.  
and Kühnau, J., internal secretion of adrenal cortex, A., 642.
- Schmitz, *F. D.*, atmospheric influence on soil and its effect on cultivation, B., 1025.
- Schmitz, *H.* See Broche, H.
- Schmitz-Dumont, *O.*, and Geller, K. H., polymerisation of alkylated indoles, A., 724.  
and Hamann, K., active hydrogen atoms of polymeric indoles, A., 167.
- Hamann, *K.*, and Geller, K. H., constitution of dimeric indoles, A., 958.
- Schmitz-Hillebrecht, *E.* See Helferich, B.
- Schnasse, *H.*, crystal structure of mangano sulphides and their mixed crystals with zinc sulphide and cadmium sulphide, A., 341.
- Schnebel, *E.*, and Krupp Akt-Ges., F., shapes from homogeneous [tungsten carbide] alloys of great hardness, (P.), B., 311.
- Schnegg, *R.* See Schmidt, Erich.
- Schneider, *C.* See Böeseken, J.
- Schneider, *Eduard*, nitrogen fertilisers and presence and development of *Azotobacter chroococcum* in soils, B., 563.
- Schneider, *Erich*, and Widmann, E., trans-mineralisation and liver damage due to thyroid, A., 1209.
- Schneider, *F.* See Benedetti-Pichler, A. A.
- Schneider, *George*. See Dreyfus, C.
- Schneider, *Gerhard*, scattering of rapid protons by light elements on close approximation to the nucleus, A., 657.
- Schneider, *H.*, new Rojahn-Heinrich colour and luminescence comparator, A., 800. Colorimeter, A., 1026.
- Schneider, *J. H.* See Gardner, J. H.
- Schneider, *M.* See Nitschke, A.
- Schneider, *Max*, electrode for accumulators, (P.), B., 154.
- Schneider, *M. L.* See Cherbuliez, E.
- Schneider, *P.* See Pfeiffer, P.
- Schneider, *S.* See Alder, K.
- Schneider, *W.*, and Kubelka, P., alkali nitrates, B., 864.
- Schneiderhan, *F. J.*, "instant" Bordeaux [mixture], B., 360.
- Schneiderhöhn, *H.*, German ore deposits; rare elements present or suspected, A., 589.
- Schnellbach, *W.*, and Rosin, Joseph, quinine hydrobromide with chloroform and bromoform of crystallisation, A., 77.
- Schnelle, *F.*, and Heiser, F., influence of variety and environment on various properties of rye, B., 407. Quality investigations on wheats from geographical investigations of the International Institute of Agriculture, Rome, B., 407.
- Schneller, *H.* See Fromherz, H.
- Schneer, *J.* See Strohecker, R.
- Schnetzler, *K.* See Joos, Georg, and Rohde, L.
- Schniepp, *L. E.* See Coffman, D. D.
- Schnitzspahn, *L.* See Hüchel, W.
- Schnurmann, *R.*, magnetic deviation of oxygen molecules, A., 1101.
- Schoch, *E. P.*, production of dehydrated and charred lump lignite, (P.), B., 534.
- Schoch, *T. J.* See Taylor, T. C.
- Schöberl, *A.*, oxidation of disulphides to sulphonic acids with hydrogen peroxide; synthesis of taurine, A., 696.  
[with Wiesner, M.], oxidative degradation of biologically important sulphur compounds, A., 1276.
- Schoedel, *W.*, thyrotropic action of anterior pituitary gland on basal metabolism, A., 1337.
- Schoeffel, *E.*, and Link, K. P., isolation of  $\alpha$ - and  $\beta$ -D-mannuronic acid, A., 595.  
See also Niemann, C.
- Schoeller, *W.*, and Gehrke, M., inhibitory factors and mechanism of action of sex hormones of the opposite sex on development of sex glands, A., 1211.
- Schwenk, *E.*, and Hildebrandt, F., new hydrogenation products of the follicular hormone, A., 755.  
See also Falck, R., and Junkmann, K.
- Schoeller, *W. R.*, analytical chemistry of tantalum, niobium, and their mineral associates. XXIV. Separation of tantalum from niobium, A., 139.  
and Webb, H. W., analytical chemistry of tantalum, niobium, and their mineral associates. XXV. Separation of uranium from tantalum, niobium, and titanium, A., 479.
- Schoenbach, *E. B.* See Conant, J. B.
- Schönbauer, *C.* See Kremenezky, J.
- Schönberg, *A.*, attempted detection of free radicals with univalent sulphur, A., 157.
- Kaltschmitt, *H.*, and Schulten, H., organo-metallic compounds. III. Action of lithium phenyl on trimethylene-1:3-disulphide and syntheses of dichromylenes, A., 291.

- Schönberg, A., Petersen, E., and Kaltschmitt, H., organo-metallic compounds. I. Action of sodium on thionaphthen and thioacetals, A., 291.
- and Rupp, E., new class of "free" radicals, A., 1048.
- and Stephenson, A., organic compounds of sulphur. XXII. Action of sodium diphenylmethyl on diphenyl sulphoxide; radical migration. XXIII. Constitution of the photodimeric thiophosgene, A., 291, 487.
- Stephenson, A., Kaltschmitt, H., Petersen, E., and Schulten, H., organo-metallic compounds. II. Action of organo-alkali-metallic compounds on disulphides, diselenides, carbon disulphide, and thionylamine derivatives and synthesis of dimeric diphenylthioketen, A., 291.
- Schönberger, W. See Bertho, A.
- Schöne, A., spontaneous ignition of stored sugar, B., 362.
- Schoene, W. J., spray tests for white apple leafhopper (*Typhlocyba americana*), B., 646.
- Schoenebeck, O. von. See Neuberg, C.
- Schoenfeld, F. K., and Allen, R. P., dispersibility of gas black [in rubber]. II. Evaluation of gas blacks, B., 1022.
- See also Allen, R. P.
- Schönfeld, H., removal of acid from oils by distillation with steam, B., 75.
- See also Kluge, M.
- Schönfeld, Herbert, hyperglycemia after lumbar puncture, A., 526.
- Schoenfeld-Reiner, R. See Reiner, Markus.
- Schoenfeldt, H. W., and Burns, G. J., puddling furnace, (P.), B., 711.
- Schönfeldt, N., electro-osmosis and electrophoresis. II, A., 347. Dependence of electrokinetic potential on the current density, A., 776.
- See also Engelhardt, I.
- Schönheimer, R., specificity of cholesterol resorption and its biological significance, A., 1073.
- and Dam, H., ease of hydrolysis and solubility of sterol digitonides, A., 500.
- and Hrdina, L., excretion and reabsorption in the small intestine, with special reference to sterols, A., 87.
- Schoenmaker, P., heat treatment of metals, B., 108.
- Schoenthal, L., Lurie, D., and Kelly, M., urea clearance in normal and in dehydrated infants; renal function and intestinal intoxication, A., 739.
- Schönthan, J. P., disinfection with full iodine, (P.), B., 894.
- Schönwälder, F. H., bauxite as a flux in the basic open-hearth [steel] process, B., 1011.
- Schöpel, H. See Le Blanc, M.
- Schöpf, C., and Becker, E., occurrence of pterins in wasps and butterflies; leucopterin and xanthopterin, A., 1311.
- and Herrmann, Roland, solanidine, A., 290.
- See also Wieland, H.
- Schoepfle, G. K., extension of the Pd-I-like isoelectronic sequence to antimony vi and tellurium vii, A., 655.
- Schöpp, K. See Karrer, P.
- Schörmüller, A. See Levene, P. A.
- Schoetzow, R. E. See Green, L. W.
- Schofield, F. H. See Roess, W. F.
- Schofield, R. K., rapid methods of examining soils. II. Use of *p*-nitrophenol for assessing lime status. III. Use of potassium dihydrogen phosphate in studying base-exchange capacity, B., 561.
- and Blair, G. W. S., relationship between viscosity, elasticity, and plastic strength of soft materials, as illustrated by some mechanical properties of flour doughs. I.—III., B., 95, 367, 843.
- Schofield, T. H. See Grogan, J. D.
- Scholbe, P. F. See Sorensen, E. E.
- Scholder, R., amphoteric behaviour of metal hydroxides, A., 904.
- and Schletz, E., amphoteric behaviour of metal hydroxides. I. Magnesium pyrocatechol hydroxy-salts, A., 474.
- and Wolf, M., pyrocatechol compounds of alkaline earths, A., 389.
- Scholderer, H., bilirubin metabolism. III. Disappearance of injected bilirubin from the blood-stream; action of the spleen on this process. IV. Resorption of bilirubin in the intestine, A., 309.
- See also Verzář, F.
- Scholefield, F., and Turner, H. A., behaviour of vat dyes on cotton, B., 745.
- See also Imperial Chem. Industries.
- Scholer, H. See Berger, E.
- Scholes, S. R., rapid determination of soda in glasses, B., 704. Methods of melting glass, B., 915.
- Scholl, A. W., Hutchison, A. W., and Chandless, G. C., activity coefficients of salts in anhydrous acetic acid solutions from solubility measurements [at 25°], A., 1014.
- Scholl, F. See Willheim, R.
- Scholl, Roland, and Donat, J., supposed aryloxyperhydrofurananthroxyls as derivatives of benzoylene- $\beta\beta'$ -benzofuran, A., 508.
- Scholl, Rudolf. See Fürth, O.
- Scholl, W., and Davis, R. O. E., ammoniation of peat for fertilisers, B., 1026.
- See also Davis, R. O. E.
- Schollen-Borg, G. See Hägglund, E.
- Scholtz, H. G., influence of thymus preparations in experimental hyperparathyroidism, A., 430, 641. Thymus extract and blood-calcium level, A., 641.
- Scholz, C. See Barger, G., and Ruzicka, L.
- Scholz, H. See Arndt, F.
- Scholz, H. A. See Linzell, H. K.
- Scholz, K., quantum mechanical calculation of intensities of infra-red bands, A., 6.
- Scholz, R., changes during vernal activity of *Ginkgo biloba*, A., 873.
- Scholz, V., and Atlas Ago Chem. Fabr. A.-G., plastic compound, (P.), B., 722.
- Scholz, W., microcolorimetric determination of iron in small amounts of plant ash, A., 106. Nodulation and chlorosis of yellow lupins (*Lupinus luteus*), B., 567. Carbohydrate manuring and chlorosis of yellow lupin (*Lupinus luteus*), B., 567. Chlorosis of yellow lupins (*Lupinus luteus*) in relation to iron, B., 599.
- Schommer, W. See Diltthey, W.
- Schonberg, J. R., and Standard Oil Development Co., carrying out chemical reactions [in oil cracking], (P.), B., 614. Distillation [of petroleum lubricating oils] under [high] vacuum, (P.), B., 616.
- See also Standard Oil Development Co.
- Schoonover, I. C., and Furman, N. H., volumetric determination of arsenic; potentiometric titrations of reduced arsenic solutions with potassium iodate in sulphuric and hydrochloric acid solutions, A., 1023.
- Schoorl, N., determination of nitroglycerol in solution, B., 123.
- Schorger, A. W., and Burgess Cellulose Co., coated paper [stereotype mat], (P.), B., 383.
- and Burgess Labs., Inc., C. F., porous structure such as sound absorbent plaster, (P.), B., 63.
- See also Burgess Labs., Inc., C. F.
- Schorigin, P. P., Issagulianz, V., Belov, I., and Alexandrova, S., composition of high-boiling components of fusel oil, B., 809.
- Issagulianz, V., and Gusseva, A. R., preparation and application of organo-magnesium compounds without use of ether. II. Action of magnesium on alkyl and aryl chlorides, A., 1150. Action of metals on aldehydes, A., 1162.
- Issagulianz, V., Gusseva, A. R., Paliakov, K. S., and Ossipova, V. P.,  $\beta$ -phenylethyl alcohol, (P.), B., 956.
- Issagulianz, V., and Matschinskaja, I., homologues of cinnamaldehyde. II.  $\alpha$ -Phenyl- and  $\alpha$ -benzyl-cinnamaldehyde, A., 393.
- and Makarova-Semlianskaja, N. N., isosaccharinose, A., 377.
- and Rymashevskaja, J., methylene esters of cellulose and their acetates, A., 700. Cellulose hydroxyethyl ether and its acetate, A., 812.
- Schott, G. A., electromagnetic fields due to variable electric charges and intensities of spectrum lines according to the quantum theory, A., 206.
- Schott, H. F., and Borsook, H., coupled reactions in biological systems, A., 980.
- Schott, J. E., and Atlantic Refining Co., removal of wax from oil, (P.), B., 295.
- Schou, S. A., and Bennekou, I., injection therapy. IV. Preparation and sterilisation of sodium thiosulphate solution for injection purposes, B., 249.
- and Bjerregaard, P. B., injectional therapy. III. Decomposition of solutions of atropine and homatropine on sterilisation by heat, B., 43.
- and Staggemeier, O. M., injection therapy. VI. Effect of sterilisation on tutocaine and larcocaine solutions, B., 571.
- See also Hansen, S.
- Schouls, (Mile.) G., dynamic azeotropism, A., 455.
- Schoutissen, H. A. J., preparation of derivatives of *m*-phenylenedihydrazine using the tetrazonium salt of *m*-phenylenediamine, A., 1285.
- Schpitzl, A. S., chemical properties of substantive dyes, B., 662.
- Schrader, Angelica. See Hanemann, H.
- Schrader, Artur. See Grimmer, W.
- Schrader, A. L., potash content and potash manuring of vines and soils in the Moselle, Saar, and Rumer, districts, B., 981.
- Schrader, H. See Houdremont, E.
- Schrader, L. F., Wright, W. H., and Foundation Oven Corp., combination [coke] oven, (P.), B., 339.
- Schränkler, W. See Kallmann, H., and Wilke, E.

- Schramek, W. [with Neumann, H., and Schubert, C.], X-ray fibre diagram as a quantitative measure of change of structural units of cellulose fibre by chemical processes. II. Use of mixed preparations for measurement of partial conversion in action of aqueous sodium hydroxide on cellulose, A., 452.
- Schramm, E. See Weller, R.
- Schramm, O., Lauenstein, O., Lauenstein, W., and Eyermann, W. H., [tempering] of chocolate [masses], (P.), B., 570. [Machine for] manufacture of [tempered] chocolate, (P.), B., 811.
- Schramm, W. See Honcamp, F.
- Schrauth, W., high-pressure hydrogenation of fats, B., 717. Stearine, (P.), B., 1066.
- Schreder, K., Brunner, R., and Hampe, R., *Pseudomonas Lindneri-Kluyver* (*Ter-mobacterium mobile*, Lindner); aerobic and anaerobic fermentation. Alcohol formation. Acid formation, A., 428, 983.
- See also Stephan, R.
- Schreiber, H., true sucrose content of [sugar] cane, B., 885.
- Schreiber, W. See Bergmann, E., and Remy, E.
- Schreinemachers, H. H. See Blanksma, J. J., and Schreinemakers, F. A. H.
- Schreinemakers, F. A. H., osmotic systems in which non-diffusing substances may occur. I. II. Equilibrium and change of permeability of the membrane. III. Equilibria with one invariant liquid. IV., A., 22, 122, 459, 673. Stationary, checked, and other states of osmotic systems. I., A., 900.
- and De Vries, C. L., absorption and osmosis. I. and II., A., 565, 776.
- and Schreinemachers, H. H., osmosis in systems consisting of water and tartaric acid. I. and II., A., 459, 1114.
- and Werre, J. P., osmosis in systems consisting of water and tartaric acid. III., A., 22.
- and Wolk, L. J. van der, osmotic systems containing liquid, sodium chloride, and sodium carbonate with one invariant liquid. I. and II., A., 22.
- Schreiner, C. L. See Smith, Arnold H.
- Schreiner, H. See Kremann, R.
- Schreiter, R., microscopical investigation of the Cambroslurian bitumen-bearing strata at Billingen in South Sweden, A., 482.
- Schrempf, A., examination of eggs by ultra-violet light, B., 889.
- and Weidlich, G., determination of age of eggs during the summer months, B., 489.
- See also Jesser, H.
- Schreus, H. T., and Carrié, C., physiology and pathology of porphyrin excretion, A., 1187. Determination of porphyrin in urine, A., 1187.
- Schricker, J. A. See Deemer, R. B., and Houghland, G. V. C.
- Schriever, W. See Krauss, Ferdinand.
- Schrire, I., and Zwarenstein, H., influence of the gonads on protein metabolism. II. Effect of injections of saline suspensions of testes and testicular extracts on urinary creatinine after castration. III. (a) Effect of injections of anterior pituitary extracts on urinary creatinine in normal and castrated rabbits. (b) Tolerance of normal and castrated animals to injected creatine, A., 194, 1210.
- Schroeder, A., emulsification processes in margarine industry, B., 74. Hydrogenated oils in margarine industry, B., 155.
- Schröder, E., measurement of heat content of steel and slag, B., 1011. Temperatures of steel and slag in the basic open-hearth process, B., 1058.
- See also Osann, E., jun., and Schwarz, C.
- Schroeder, E. F., Woodward, G. E., and Platt, (Miss) M. E., effect of amines on yeast poisoned with iodoacetic acid, A., 637. Relation of thiol to inhibition of yeast fermentation by iodoacetic acid, A., 865.
- Schroeder, Heinrich, and Herrmann, F., carbohydrates and carbohydrate metabolism of foliage. II. Inversion of sucrose in leaves after treatment with ether, A., 543.
- Schröder, Hermann (Hamburg), and Lühr, W., colorimetric and gravimetric methods for determination of arsenic, especially in water and filter-mud, B., 334.
- Schroeder, Hermann (Montreal), uric acid excretion through the intestine and effect of drugs thereon, A., 90.
- Schröder, Hugo. See Huffelmann, K.
- Schroeder, H. F., Russell, C. D., and Ruselite Corp., [zinc] alloy, (P.), B., 69.
- Schroeder, H. O., action of various uric acid eliminants on experimental uric acid storage in the kidney, A., 185.
- Schroeder, R. A. See Nelson, R. E.
- Schroeder, R. H., and Müller, K. E., apparatus for melting, atomising, and spraying fusible substances, (P.), B., 335.
- Schröder, V., physico-chemical properties of isohamagglutinogens, A., 522.
- and Vollmer, H., excretion of thymol, carvacrol, eugenol, and guaiacol and distribution of these substances in the organism, A., 90.
- Schroepfer, G. J., factors affecting efficiency of sewage sedimentation, B., 526.
- Schröter, F., and Telefunken Ges. für drahtl. Telegraphie m.b.H., oxide [electron-emitting] cathode, (P.), B., 25.
- Schröter, H., relationship of plants to lime content of their habitat, B., 565.
- Schroeter, H. von, oil for industrial furnaces, B., 50.
- Schroetter, G., chemical constitution of aldehyde and ketone hydrogen sulphites, A., 808.
- Schropp, W., biology of the potato. XIII. Water cultures of potato, A., 103.
- See also Lunde, G., Niklas, H., and Scharrer, K.
- Schrum, See Diels, O.
- Schrumpf, A., micro-determination of galactose in blood, A., 295.
- See also Skouge, E.
- Schrumpf-Pierron, P., mineral content of Egyptian cereals, A., 328. Influence of variety on mineral content of grain, A., 649.
- Schteifon, E. M. See Schultz, V. N.
- Schteingart, M. See Udaondo, C. B.
- Schtscherbakov, I. G., dehydration of carnallite and magnesium chloride, B., 304.
- and Raspopina, A. K., relation between dehydration and hydrolysis of magnesium chloride on heating the crystalline salt, A., 679. Copper sulphate from Ural copper ores and from copper waste. II. Decomposition of copper sands with sulphuric acid. III. Treatment of waste from dust-settling chambers, B., 305. Dehydration of magnesium chloride, B., 463.
- Schtschigol, M., determination of chloride ion in presence of bromide and iodide ions, A., 1260.
- Schtschukina, M. N. See Preobraschenski, N. A.
- Schub, M. E. See Vasiliev, A. A.
- Schub, N. S., reactions for detection of sulphites and thiosulphates, and sensitivity of reactions for sulphides and sulphates, A., 687.
- Schube, P. G., method for measuring cholesterol, A., 294.
- and Harms, H. E., colloidal carbon flocculation test [for syphilis] in cerebrospinal fluid, A., 526.
- Schubert, C. See Schramek, W.
- Schubert, H., centrifugal machine, (P.), B., 208.
- Schubert, M. P., complex of cobalt and cysteine, and its behaviour with hydrogen peroxide, A., 1039.
- See also Michaelis, L.
- Schubert, R., preparation of fertilisers [from peat], (P.), B., 38.
- Schubnikov, A. See Schaskolski, M., and Zinserling, K.
- Schubring, F. L., powder for preventing battery-post corrosion, (P.), B., 636.
- Schuch, E., transformation and properties of gold-copper alloys, A., 1238.
- Schuch, F., economics of Petersen tower system [of sulphuric acid manufacture], B., 59. Ammonia-soda plant for a modernised Solvay system, B., 426.
- Schucht, F. [with Baetge, H. H., and Düker, M.], survey of smoke-injured area of the Oker foundry, B., 83.
- Schuckmann, G. von. See Bertho, A.
- Schübel, K. See Heubner, W.
- Schüchtermann & Kremer-Baum, Akt.-Ges. für Aufbereitung, separation of materials of different specific gravities, (P.), B., 656.
- Schüffler, J., pot furnaces for glass smelting, (P.), B., 148.
- and Wibelstrahlbrenner Ofenbauges. m.b.H., melting aluminium, etc., (P.), B., 235.
- Schüler, H., oxidation of haemoglobin-iron by potassium ferricyanide and equilibrium of the reaction, A., 173. Equilibrium between carbon monoxide-haemoglobin and potassium ferricyanide, A., 622.
- and Westmeyer, H., isotope displacement and nuclear moment of zinc, A., 547. Isotope displacement, A., 759. Hyperfine structures, A., 760. Hyperfine structure of the resonance lines of Sr II, A., 992. Nuclear moment of tin, A., 1099. Magnetic moments of atomic nuclei, A., 1101.
- Schueler, J. E., and Thomas, R. P., determination of potassium by sodium cobaltinitrite, A., 688.
- Schueler, J. L., and Continental Steel Corp., [corrosion-resistant] alloy steel, (P.), B., 591.
- Schuelke, E., solvents in cleaning acetate rayon, B., 143.
- Schürmann, H. See Diepschlag, E.
- Schürmeyer, A. See Holland, G.
- Schüth, W. See Klemm, W.
- Schuette, H. A., and Chang, C. Y., hazelnut (filbert) oil, B., 877.
- and Huebner, E. O., daily variations in the f.p. of milk, A., 1067.
- and Pauly, R. J., determination of diastatic activity of honey, B., 248.
- See also Cowley, M. A., and Stout, A. W.

- Schütte, R. See Wartenberg, H. von.
- Schütz, F., and Klauditz, W., relation between sulphur and ash contents of sulphite cellulose and a method for determining sulphur, B., 342. Rosin sizing of paper, B., 584.
- Schütz, W., microphotometer for registering the blackening of a photographic plate, A., 925.
- See also Bergmann, E.
- Schütza, H. See Wartenberg, H. von.
- Schütze, M., selection of yeast, B., 1076.
- Schütze, H., *B. pestis* antigens. I. Antigens and immunity reactions of *B. pestis*. II. Antigenic relationship of *B. pestis* and *B. pseudotuberculosis rodentium*. III. Prophylactic value of the envelope and somatic antigens of *B. pestis*, A., 97.
- See also Guyer, A.
- Schütze, W. See Lukanow, H.
- Schuff, W. See Wöhler, L.
- Schuilkin, N. I. See Zelinski, N. D.
- Schukarev, A. N., and Bondareva, M. V., velocity of solution of carbon dioxide and ammonia in water and aqueous solutions, A., 32.
- Schulein, J., coloured coatings [on zinc], (P.), B., 196.
- Schulek, E., and Gervay, V., determination of hexamethylenetetramine in medicinal preparations, B., 651.
- and Kerényi, B., "hydrolysis" of nitroglycerin, evaluation of "nitroglycerinum solutum," and analysis of nitroglycerin and nitromannitol preparations containing fat, B., 43.
- and Vastagh, G., presumed and actual errors in macro- and micro-Kjeldahl distillation, A., 582.
- Schuler, W., and Reindel, W., uricolysis. III., A., 427.
- Schulerud, A., preparation of rye starch, B., 327. Yellow coloration of flour extracts, B., 408. March of acidity in stored flours determination of flour acidity, B., 442.
- Schulgin, N. A., causes of formation of fat spows on "Russia" leather, B., 598.
- Schulhof, L. See Bernhauer, K.
- Schulman, J. H., and Hughes, A. H., surface potentials of unimolecular films. IV. Effect of underlying solution and transition phenomena in the film, A., 21.
- and Rideal, E. K., mono-layers of proteolytic enzymes and proteins, A., 1331.
- Schulten, H. See Schönberg, A.
- Schultz, A., Frey, C. N., and Standard Brands, Inc., yeast, (P.), B., 762.
- and Kirby, G. W., biological method for determination of different sugars in starch-degradation products, A., 597.
- Schultz, F., and Laquer, F., irradiated adenine sulphate and antineuritic vitamin (B<sub>1</sub>), A., 1089.
- Schultz, H. See Sayles, B. J.
- Schultz, J. See Binger, H., and Nolte, O.
- Schultz, J. F. See Emmett, P. H.
- Schultz, J. W., and White, A. H., fractional oxidation and cracking of Pennsylvania naphthas, B., 7.
- Schultz, O., free fatty acids in cod-liver oils and vitamin-D, A., 1089.
- Schultz, R. F. See Conant, J. B.
- Schultz, V. N., Scheitron, E. M., and Kubaeva, A. M., [with Korzinkina, J. V.], adsorption of oxides of nitrogen on silica gel, A., 899.
- Schultze, A. See Rabe, P., and Schlubach, H. H.
- Schultze, K., capillarity. XVIII. Capillary rise and its relations to angle of inclination of the wall, A., 458.
- Schultze, M. O., and Elvehjem, C. A., iron and copper, and reticulocyte response in anemic rats, A., 1321.
- Schultze, W., distillation process, (P.), B., 992.
- Schultzer, P., determination of vitamin-D by the preventive method; preventive dose established as curative, A., 757. Treatment of parathyroid tetany with calcium chloride, parathyroid extract, and vitamin-D, A., 1072. Treatment of scurvy in man with intravenous injection of ascorbic acid, A., 1091.
- Schulz, A. P., and Steinhoff, G., analysis of starch products. V., B., 520.
- Schulz, B., mercury or diaphragm processes of electrolysis of alkali chloride, B., 16.
- Schulz, E. H. See Faulhaber, R.
- Schulz, F., and Balada, A., standardisation of the Conradson coking test [for lubricating oils], B., 50.
- and Prunet, J., crystalline phenols from lignite tars, B., 210.
- Schulz, F. N., and Becker, M., insect wax. V. *Psylla* and *Schizoneura* wax. VI. Synthesis of di-acid triglycerides of palmitic and myristic acids, A., 736, 1066.
- Schulz, G. V., and Ettisch, G., primary and secondary reactions of proteins with acids and bases, A., 620.
- See also Ettisch, G.
- Schulz, H. See Berl, E.
- Schulz, Hermann. See Deuts. Gold- & Silber-Scheideanstalt vorm. Roessler.
- Schulz, Hubert, prevention of boiler corrosion by action of gases from boiler slime, B., 735.
- Schulz, H. C. See Honcamp, F.
- Schulz, H. I. See Weingand, R.
- Schulz, J. See Sturm, A.
- Schulz, K. G., evaluation of potatoes by feeding tests on cattle, B., 204. Mineral matter, a constituent of rations containing [distillery] spent wash, B., 764.
- Schulz, R. See Reinhold, H.
- Schulz, W., and Amer. Glanzstoff Corp., improvement of air conditions in work-rooms in which artificial products of viscose are manufactured, (P.), B., 126.
- Schulze. See Wöhlbier, W.
- Schulze, A., structural peculiarities of bismuth and antimony, A., 891.
- and Graf, L., supposed allotropy of antimony, A., 1109.
- Schulze, B., Lofton-Merrett method of differentiating microscopically between unbleached soda (sulphate) and sulphite pulp, B., 459.
- Schulze, E., and Pharmaceut. Corp., sterilisation of organic substances, (P.), B., 183.
- Schulze, G. E. R., crystal structure of boron phosphate and boron arsenate, A., 1004.
- Schulze, H., effect of refrigerants on brewery plant, B., 935.
- Schulze, H. A. See Powell, C. E.
- Schulze, K. (Krefeld), measurement of  $p_H$  in the textile industry, B., 583.
- See also Weltzien, W.
- Schulze, Konrad, determination of potassium iodide in unguentum kalii iodati, D.A.B. VI., B., 684.
- Schulze, M., fish meal as a feeding-stuff. II. Manufacture, B., 444.
- Schulze, R., optical and photo-electric experiments with thin metallic layers, A., 202. Atomic ionisation by electric fields, A., 1222. Use of high-lead tin bronzes as bearing metal, B., 194.
- Schumacher, E. E. See Scaff, J. H.
- Schumacher, H. J., decomposition reactions of oxides of chlorine, A., 241.
- and Townsend, R. V., photochemical decomposition of chlorine monoxide between 2350 and 2750 Å., and interpretation of its absorption spectrum in this region, A., 577.
- and Wiig, E. O., thermal decomposition of ethylamine, A., 129.
- See also Glissmann, A., and Hettner, G.
- Schumann, T. E. W., and Combustion Utilities Corp., carbonisation of coal, (P.), B., 1044.
- Schumb, W. C., and Sundström, R. F., amines of lower chlorides of titanium, A., 361.
- See also Simpson, S. G.
- Schundler, F. E. See Denning, P. S.
- Schupp, P. O., constitution of anodically deposited Ta<sub>2</sub>O<sub>5</sub> layers, A., 1003. Passivity of tantalum in non-aqueous solvents. B. Formamide, acetone, methyl ethyl ketone, pyridine, acetic acid, and sulphuric acid, A., 1016.
- Schuppe, W. See D'Ans, J.
- Schur, I. B., detection of glucose in urine by means of potassium permanganate, A., 179.
- Schur, M. O., and Brown Co., impregnation of fibrous articles and material therefor, (P.), B., 665. Treatment of paper articles with viscose, (P.), B., 700.
- Hoos, B. G., and Brown Co., treatment of cellulose prior to nitration, (P.), B., 57. Manufacture of shredded cellulose pulp adapted for nitration, (P.), B., 663. Nitrocellulose manufacture and cellulose therefor, (P.), B., 663. Preparation of nitrocelluloses, (P.), B., 663.
- Rasch, R. H., and Brown Co., processing of [extracting resinous impurities from] cellulose fibre, (P.), B., 14.
- Rasch, R. H., Hoos, B. G., and Brown Co., conditioning of cellulose fibre [for nitration], (P.), B., 664.
- See also Richter, G. A.
- Schurecht, H. G., and Pole, G. R., special types of crazing [of ceramic glazes], B., 19.
- Schuricht, A. G., Wright, G. T., and Western Cartridge Co., [lead] shot, (P.), B., 592.
- See also Olin, J. M., and O'Neil, A. S.
- Schuster, F., multiple equilibria, A., 1012. Technical practicability of the production of liquid fuels in gasworks and coke-oven plants, B., 901.
- Schuster, G., composition of illipé butter;  $\alpha$ -dilauro- $\beta$ -azelain and  $\alpha$ -dilaurin, A., 50. Di(carbanilidomethyl) arylthioarsinites and their complex [salts with] mercuric [chloride], A., 290. Arylarsinites of thiophenols [phenylthiolarsines] and their complex mercuric salts, A., 618. Composition of cow-butter; laurobutyroazelain, B., 237. Adulteration of cacao butter; determination of the index of azelaic acidity, B., 1081.
- Schuster, K. See Englert, E., and Wiberg, E.
- Schuster, M. B., cracking and treatment of hydrocarbons, (P.), B., 536.
- See also Darlington, H. T.



- Schuster, P. B., and Magnetic Gauge Co., indicating temperatures of moving bodies, (P.), B., 768.
- Schusterius, C. See Gottfried, C.
- Schutte, H. S., treating ferrous sheets and plates, (P.), B., 394.
- Schutte & Koerting Co. See Lindemann, O. A.
- Schutz, P. W. See Latimer, W. M.
- Schuwirth, K. See Kisch, B.
- Schvemberger, V., and Gordon, V., preparation and properties of octachloronaphthaleno. I, A., 387.
- Schwab, E. See Abderhalden, E.
- Schwab, G., and Nolte, A. C., heat-treating apparatus, (P.), B., 815.
- Schwab, G. M., Bamann, E., and Laeverenz, P., asymmetric ester hydrolysis by enzymes. VII. Configuration specificity of (human) liver-esterase according to kinetic treatment of the various processes, A., 534.
- and Eberle, B., decomposition of nitrous oxide on glowing platinum, A., 33.
- and Friess, H., preparation and properties of atomic chlorine, A., 580.
- Atomic chlorine, A., 1021.
- Rosenfeld, B., and Rudolph, L., chain character of catalase action, A., 634.
- Staeger, R., and Baumbach, H. H. von, ability of metal oxides to decompose nitrous oxide, and their position in periodic system, A., 575.
- Schwab, J. W., Butterworth, C. E., and Koppers Co., treatment of waste waters [containing sulphides], (P.), B., 126.
- Schwabe, G., effect of amino-acids on oxygen consumption of submerged plants, A., 101.
- Schwabe, K., limiting currents in anodic polarisation of metals in aqueous solutions. III, A., 1248.
- See also Müller, Erich.
- Schwaibold, J., determination of iodine in biological material, A., 654.
- Detection of benzoic acid and of *p*-chlorobenzoic acid in cheese, B., 40.
- and Fischler, F., interaction of metallic containers and foodstuffs. III. Biological rating of metals, A., 1200.
- Schwalbe, A. See Aschan, O.
- Schwalbe, C. G., and Berling, K., cheap flameproofing agent for wood, B., 62.
- and Just, G., determination of sodium fluoride by Penfield's method, A., 1024.
- and Neumann, K. E., atmospheric oxygen, a factor in wood formation, A., 1340.
- Artificial formation of peat: coalification of sphagnum moss, B., 416.
- Schwalbe, F. G., apparatus for heating glass, (P.), B., 706.
- See also Bulask, F. J.
- Schwalbe, H. C., [wood-]pulp testing and specification investigation, B., 1002.
- and Dill & Collins Co., treatment of cellulose fibre pulp, (P.), B., 1004.
- Schwalm, B. F., and Neville Co., compounding of rubber, (P.), B., 558.
- Schwalz, A., [slow-setting] cementitious composition, (P.), B., 388.
- Schwan, W. See Fischer, Hellmut.
- Schwaneberg, H. See Straek, E.
- Schwartz, E., piezoelectric and dielectric properties of Rochelle salt, A., 663.
- See also Knorr, C. A.
- Schwartz, G., steaming for improvement of garden soils, B., 51.
- Schwartz, G. L. See Du Pont de Nemours & Co., E. I., and McCormick, F. H.
- Schwartz, I. S., site of formation of principal glycogen reserve on ingestion of carbohydrate, A., 1074.
- Schwartz, N. See Dahl, O.
- Schwartz, W., and Steinhard, H., oligodynamic action of copper. II, A., 1334.
- Schwartzwalder, K. See Barlett, H. B.
- Schwarz, C., heat effects in metallurgical reactions, B., 191.
- Killing of steel, especially with calcium silicide, B., 1011.
- Manganese and phosphorus equilibria [in steel manufacture] in the light of new temperature measurements. II, B., 1057.
- Schröder, E., and Leiber, G., manganese and phosphorus equilibria [in steel manufacture] in the light of new temperature measurements. I, B., 967.
- Schwarz, E. See Egarter, L.
- Schwarz, E. I. See Kremann, R.
- Schwarz, G., and Müller, E., determination of iron in cream, butter, and curd, with special reference to preparation of butter from cream containing iron, B., 937.
- Schwarz, H., distribution of soil acidity in Viennese forests, A., 484.
- and Rappaport, F., micro-gas analysis and its application particularly for biological purposes, A., 758.
- Schwarz, Karl, theory of electrolysis phenomena in metallic solutions, A., 571.
- Quantitative analysis in small and ultra-small amounts of liquid by means of potentiometric titration. I. Titrations in macro-drops, A., 581.
- Simple tapless microburette, A., 586.
- Transport of matter and passage of current in liquid alloys, A., 908.
- and Kantör, T., potentiometric determination of small amounts of mercury, A., 799.
- and Schlösser, C., potentiometric determination of very small amounts of chloride, A., 582.
- Schwarz, Kurt. See Karrer, P.
- Schwarz, M., Zschimmer, F., Zschimmer, E., Schwarz, R., and Schwarz, W., manufacture of water-soluble crystalline aluminium salts of lower fatty acids, (P.), B., 1047.
- Schwarz, M. von, and Müller, Herbert, transformation of austenite, B., 630.
- and Summa, O., calculation methods in fine structure investigations, A., 12.
- Does a compound  $Al_2Zn_3$  exist? A., 219.
- Precipitation-hardening phenomena in Britannia metal, B., 551.
- Schwarz, M. A. See Bernardi, A.
- Schwarz, R., colorimetric determination of titanium, A., 366.
- Artificial transformation of felspar into kaolin, A., 589.
- and Giese, H., constitution of perchromates, A., 241.
- and Halberstadt, J., electrolysis of glass at high temperatures, A., 355.
- and Heinrich, F., germanium. XI. Germanium chloroform and germanium oxychloride, A., 240.
- and Jeanmaire, A., ammonolysis of antimony trichloride, A., 38.
- and Reinhardt, W., germanium. XI. Organic compounds of germanium, A., 79.
- and Trageser, G., kaolin, A., 251.
- See also Royen, P., and Schwarz, M.
- Schwarz, W. See Schwarz, M.
- Schwarze, H. von, protective coating on steel formed by heating in air, B., 870.
- Schwarze, P., oxygen metabolism of non-succulent plants, A., 327.
- Schwarzenbach, G., acidity of thiophenol and of isomeric dithiophenols, A., 25.
- Calculation of intramolecular atomic distances from dissociation constants of dibasic acids. II. Acidity of dicarboxylic acids and polymethylenediammonium ions in aqueous alcohol. III. Acidity of substituted malonic acids in aqueous alcohol, A., 665.
- See also Karrer, P.
- Schwarzkopf, O. See Hess, K.
- Schwechten, H. W., colour reaction of thiocarbonyl compounds, A., 65.
- Schwegler, C. C., and Dow Chem. Co., apparatus for manufacture of carbon disulphide, (P.), B., 866.
- Schwegler, (Mlle.) R. See Déjardin, G.
- Schweigart, H. A., food substance from cocoa, sugar, and water, (P.), B., 891.
- Schweiger, J. See Dziewoński, K.
- Schweikert, G., long-wave limit of the photo-electric effect determined from atomic volume of the elements, A., 3.
- Schweinhagen, R. See Hilpert, S.
- Schweinitz, H. D. (Graf) von. See Goldfinger, P.
- Schweitzer, H., electrometric determinations in tannin solutions, B., 400.
- Schweitzer, Hans. See Jost, W.
- Schweizer, A., crystallisation, A., 897.
- Schwenk, E., and Hildebrandt, F., reduction of the follicular hormone, A., 540.
- Colour reactions of the follicular hormones, A., 540.
- See also Schoeller, W.
- Schwerdtfeger, F., action of contact poisons on forest insects, B., 85.
- Schwiédessen, H., analysis of dry combustion gases as a basis for technical firing calculations, B., 373.
- See also Rummel, K.
- Schwieger, A. See Rewald, B.
- Schwiersch, H., thermal decomposition of aluminium and ferric hydroxides; reactions in the solid, A., 1020.
- Schwiete, H. E. See Eitel, W., and Salmoni, R.
- Schwindt, C. J. See Daniels, L. C., and Luft, O. v. d.
- Schwob, M., dispersion of electric birefringence in ethyl ether, A., 663.
- Electric birefringence of camphor, A., 1104.
- See also Lucas, R.
- Schwörer, G. See Killian, H.
- Scientific & Industrial Research, Department of, Building Research, B.N.F. [British non-ferrous] ternary alloys of lead; their use in buildings, B., 470.
- Fabric Research Committee, viscosity of cellulose solutions, B., 381.
- Fuel Research, report by the Director of Fuel Research on the Turner retort installed at the works of the Comao Oil Co., Ltd., Coalburn, Lanarkshire, (P.), B., 97.
- Yorkshire, Nottinghamshire, and Derbyshire coalfield; South Yorkshire area; Silkstone seam, B., 131.
- Northumberland and Durham coalfield; Durham area; Hutton seam, B., 736.
- Scientific Tablet Co. See Suppiger, G. S.
- Scislowski, C., Raman spectra of isomerides, A., 7.
- Scotfield, C. S., stream pollution by irrigation residues, B., 46.

- Scollard, R. L., Ketchbaw, T. D., and Kayness Corp., electrode for welding cast iron and composition for coating same, (P.), B., 591.
- Sconce, J. S. See Rue, J. D.
- Sconzo, A., voltaic cell  $\text{Ag}|\text{fused AgNO}_3|\text{C}$ , A., 231. Velocity of reaction between potassium dichromate and potassium iodide in absence of acids, A., 469. Velocity of reaction between chromic acid and potassium iodide, A., 469. Acidimetric and alkalimetric titration of sodium thiosulphate solutions, A., 477. Kinetic proof of the law of Berthelot and Jungfleisch concerning the partition of a substance between two immiscible solvents, A., 670, 1112. Systematic analysis of inorganic anions, A., 797.
- Scorzoni, G. See Gen. Electric Co.
- Scott, A. A., and Nestle's Food Co., malted milk process, (P.), B., 123.
- Scott, A. C., [granular] explosives, (P.), B., 366. Explosives, (P.), B., 573.
- Scott, A. F., and Blair, C. M., *jun.*, magnetic susceptibilities of hydrochloric acid and lithium chloride solutions, A., 556.
- and Reid, E. F., *jun.*, mechanical device to agitate analytical solutions by swirling, A., 481.
- Scott, A. H., McPherson, A. T., and Curtis, H. L., effect of temperature and frequency on the dielectric constant, power factor, and conductivity of compounds of purified rubber and sulphur, B., 979.
- Scott, A. W., b-p. elevation of concentrated milk solutions, B., 443.
- Scott, Alfred W., adaptation of the dimethylglyoxime-benzidine test for cobalt to the usual scheme of qualitative analysis, A., 1134.
- Scott, Arthur W. See Powell, Alan R.
- Scott, C. F., apparatus for filtering oil [for internal-combustion engines], (P.), B., 53.
- Scott, C. H., and Dorr Co., Inc., sedimentation apparatus, (P.), B., 816.
- Scott, C. M., biological action of homogeneous and heterogeneous X-rays, A., 424.
- Scott, D. A., insulin crystals, A., 321.
- and Charles, A. F., heparin. I. Preparation. II. Heparin in various tissues. III. Purification of heparin, A., 1317.
- Charles, A. F., and Waters, E. T., oral administration of insulin derivatives, A., 322.
- and Parker, H., preparation of insulin, A., 321.
- See also Charles, A. F., and Fisher, A. M.
- Scott, E., and Helz, M. K., microscopic study of tissues of the albino rat following the ingestion of aluminium salts, A., 423.
- Scott, E. K., [textile] fulling and milling machinery, B., 961.
- Scott, E. W., and Rider, T. H., local anaesthetics derived from dialkylamino-propanediols. II. Esters of piperidino-propanediol, A., 381.
- Scott, G. H. See Horning, E. S.
- Scott, H., and Hoop, J. G., hardening transformation in manganese steels, A., 1007.
- See also Westinghouse Electric & Manuf. Co.
- Scott, H. M., Serfontein, P. J., and Sieling, D. H., blood analyses of normal bronze turkeys, A., 520.
- Scott, J., identification of starches, B., 280, 406.
- Scott, Jasper P. See Page, I. H.
- Scott, Joseph P., and Brandy, C. A., use of reduced iron for cultivation of anaerobic organisms, A., 1083.
- Scott, J. R., slate flour in rubber mixings, B., 239. Rubber testing, B., 1022.
- and Shacklock, C. W., stress-strain relationships of vulcanised india-rubber, B., 801.
- See also Gallie, G., and Porritt, B. D.
- Scott, J. W. See Electrical Research Products, Inc., and Western Electric Co.
- Scott, L. O., potassium content of benign uterine tumours, A., 1070.
- Scott, L. D., colorimetric determination of urobilinogen in urine and faeces, A., 850.
- Scott, T. J., and Swann Research, Inc., diphenyl, (P.), B., 907.
- Scott, T. R. See Standard Telephones & Cables, Ltd.
- Scott, W., and Rubber Service Labs. Co., ago-resisting vulcanised rubber compound, (P.), B., 481. Rubber-vulcanisation process [and age-resisting product], (P.), B., 559. Rubber-vulcanisation accelerator, (P.), B., 642, 678. Vulcanisation of rubber, (P.), B., 723, 801.
- See also North, C. O.
- Scott, W. A., and De Laval Separator Co., cleansing composition, (P.), B., 675.
- Scott, W. E. See Robinson, P. L.
- Scott, W. J. See Western Electric Co.
- Scott, Walter J., elimination of blistering of enamelled-iron number plates, B., 268.
- Scott & Son, London, Ltd., G. See Riley, G. W.
- Scotti-Foglieni, L., solubility coefficient of ethyl chloride and haematoporphyrin, A., 520.
- Scottish Dyes, Ltd. See Thorpe, J. F.
- Scripture, E. W., *jun.* See Baxter, G. P.
- Scrivenor, J. B., origin of tektites, A., 1268.
- Scrutchfield, P. H. See Brit. Thomson-Houston Co.
- Scudder, N. F. See Pomeroy, R. D.
- Seaber, W. M., barium as a normal constituent of brazil nuts, A., 1217.
- Seabury, R. L., Murray, L. W., and Delco-Remy Corp., brush for electrical machines, (P.), B., 716.
- Seager, J. H. See Parry, E. J.
- Sealock, R. R. See Du Vigneaud, V.
- Seaman, H. See Jones, G. W., and Lewis, Bernard.
- Seaman, R. G., and Naugatuck Chem. Co., rubber-dispersing agent, (P.), B., 558.
- Seaman, S. E. See Du Pont de Nemours & Co., E. I., and Hanson, H. H.
- Seaman, W. H., metal [cast-iron] roll, (P.), B., 310.
- Searle, H. E., and Worthington, R., checking caustic corrosion with Ni and its alloys, B., 1060.
- Searle, N. E., and Adams, R., stereochemistry of diphenyls. XXX. Preparation and resolution of 2:2'-di-iododiphenyl-4:4'-dicarboxylic acid, A., 608.
- Searle, O. M., and Michaels, J. J., calcium content of human cerebrospinal fluid and of an ultrafiltrate of serum, A., 1319.
- Sears, J. E., and Barrell, H., interferential comparison of red and other radiations emitted by a new cadmium lamp and the Michelson lamp, A., 200.
- Sears, R. W., and Becker, J. A., electrical conductivity of silicon carbide, A., 1229.
- Sears, Roebuck & Co. See Shee, P. B.
- Sease, V. B. and Du Pont Film Manuf. Corp., reversing photographic negatives, (P.), B., 285.
- Seastone, J. B. See Westinghouse Electric & Manuf. Co.
- Seaton, M. Y., and California Chem. Corp., preparation of high plastic lime, (P.), B., 546.
- Seaton, S. G., and Utica Hydraulic Cement Co., cement composition, (P.), B., 270.
- Sebastian, R. L., and Amer. Agricultural Chem. Co., reacting acid phosphates with [crude] ammonia liquor, (P.), B., 266.
- Sebborn, W. S., spontaneous oxidation of zinc and the nature of "pyrophoric" zinc, A., 579. Spongy zinc deposits obtained by electrolysis of aqueous solutions of zinc sulphate, A., 1019.
- Sebesta, V., absorption of light by carbon monoxide-haemoglobin, A., 622.
- Seborg, C. O., Doughty, R. H., and Baird, P. K., effect of relative humidity on moisture content and bursting strength of container boards, B., 1003.
- Seborg, R. M. See Ritter, G. J.
- Sebrell, L. B. See Goodyear Tire & Rubber Co.
- Sebring Pottery Co. See McMaster, H. J.
- Seek, W., viscosimetric effect in formation of starch paste. II., A., 779.
- and Dittmar, F., octadecane- $\alpha$ -diol, A., 47. Preparation of pure sulphuric acid esters of hydroxystearic acid and octadecanediol, A., 1033.
- Dittmar, F., and Blume, H., viscosimetric effect in formation of starch paste. I., A., 674.
- Sédalian, P. See Leulier, A.
- Seddon, E., Tippet, E. J., and Turner, W. E. S., electrical conductivity of sodium metasilicate-silica glasses, B., 347.
- Sederholm, P. See Alber, H.
- Sedivy, J., tests of safety explosives [methanite], B., 989.
- Seebach, F., and Bakelite Ges.m.b.H., purification of phenol-aldehyde resins, (P.), B., 596. Hardening of phenol-aldehyde condensation products, (P.), B., 721. Purifying phenol-aldehyde condensation products, (P.), B., 756.
- Seeger, M., dispersion experiments with undamped ultra-short waves, A., 339.
- Seeder, W. A. See Gorter, E.
- Seeger, potash fertilisers and hops, B., 163.
- Seegmiller, F. See Lewis, J. R.
- Seekamp, H., and Pfahler, W., refrigeration with ammonium thiocyanate, B., 607.
- See also Gluud, W.
- Seekles, L., and Sjollema, B., neuromuscular excitability in relation to the biochemistry of minerals. II. Influence of change of Ca/P and Na/K ratio in the diet, A., 979.
- See also Sjollema, B.
- Seel, H., chemical nature of the anti-xerophthalmic vitamin-A, A., 644.
- Seelkopf, K. See Behrens, B.
- Seemann, H., new X-ray interference method for complex crystals, in particular rolled and fibrous materials (object between two slits), A., 12. Corrections for X-ray spectrometers, A., 108. Oblique initial omission of electrons from glowing rough crystalline metal surfaces, A., 202. Errors due to photographic development in spectrograms, particularly in measurement of band edges, A., 340. Calculation of corrections for X-ray spectrometers, A., 767.

- Seemann, H. J., atomic arrangement and magnetic behaviour in the copper-gold, copper-palladium, and copper-platinum systems, A., 344. Electrical conductivity of  $\text{Cu}_3\text{Pd}$  and  $\text{Cu}_3\text{Pt}$  alloys at low temperatures with disordered and ordered atomic distributions, A., 1000.
- Seffert, H. See Siebert, W. W.
- Seif, K. See Glazunov, A.
- Segal, B. See Jeppe, C. W. B.
- Segerfelt, B. N., removing malodorous gases formed in sulphate- and soda-pulp manufacture, B., 142.
- Segl, J. See Heiduschka, A.
- Segré, E., quadrupole lines in X-ray spectra. II., A., 201.
- and Wick, G. C., series of alkaline atoms in an electric field, A., 879.
- See also Amaldi, E., Bakker, C. J., Fermi, E., and Frisch, R.
- Seguin, (Mlle.) L. See François, M.
- Seguine, W., jun., and Krebs Pigment & Color Corp., purification of zinc [sulphate] solutions, (P.), B., 267.
- See also Grasselli Chem. Co., and Mowlds, K. S.
- Segur, J. B., Hoover, K. H., and Assoc. of Amer. Soap & Glycerine Producers, treatment of [dried] fruit, (P.), B., 170. [Preparation of] dates, (P.), B., 170.
- See also Du Pont de Nemours & Co., E. I.
- Segura, C. M. See Walton, R. P.
- Seguy, J. D., and Universal Oil Products Co., apparatus for producing and utilising gas, (P.), B., 51. Cracking of [hydrocarbon] oil, (P.), B., 53, 500, 854. Conversion of petroleum oil, (P.), B., 100. Hydrocarbon oil conversion, (P.), B., 139, 539. Treatment [cracking] of hydrocarbons, (P.), B., 539.
- See also Universal Oil Products Co.
- Seibert, F. B., composition of the active principle of tuberculin. XVI. Local cutaneous sensitisation produced in normal rabbits and guinea-pigs by the protein of tuberculin, A., 868.
- and Morley, N., relationship of the tuberculin proteins of different acid-fast bacilli to sensitisation as indicated by their reactivity in sensitised animals, A., 753.
- and Munday, B., composition of the active principle of tuberculin. XV. Precipitated purified tuberculin protein suitable for preparation of a standard tuberculin. XVII. Nitrogen partition values of proteins from different acid-fast bacilli and relationship to biological activity, A., 429, 1083.
- See also Munday, B.
- Seibert, H. See Behagel, O.
- Seiberth, M. See Hartmann, M.
- Seide, O. A., and Dubinin, B. M., structure of amber musk. I. *tert*-Butyl-m-tolyl methyl ether and its nitration products. II., A., 60.
- Scherlin, S. M., and Bras, G. J., oxidation of primary hydrazines. I. Reaction of primary aromatic hydrazines with salts of heavy metals. II. Action of oxidising acids on primary aromatic hydrazines, A., 946, 1313.
- Seidel, C. F. See Ruzicka, L.
- Seidel, K., tests for aluminium foil from viewpoint of its suitability as a wrapping material for cut bread, B., 310.
- See also Neumann, M. P.
- Seidell, A., extraction of the antineuritic ( $B_1$ ) vitamin from dried brewers' yeast, A., 541. Extraction of vitamin-B<sub>1</sub> from fresh yeast, A., 1089.
- and Smith, M. I., crystalline [picrolonate of] antineuritic vitamin ( $B_1$ ), A., 1089.
- Seidenschneur, F., simultaneous production of benzene and town gas from brown-coal tar, B., 452.
- Seidl, K. See Englert, O.
- Seidler, R. See Freudenberg, K.
- Seifert, H., formation of "anomalous mixed crystals" as the cause of geochemical "enclosure" and luminescence, A., 369.
- Seifert, R., photo-electric absorption measurement of coloured and cloudy solutions, A., 366. Colorimetric determination of alkaloids, A., 729. Simple arrangement for photo-electric absorption measurement, A., 1026.
- See also Munro, A. C.
- Seigneurin. See Lisbonne, M.
- Seil, G. E., subdivision of material, (P.), B., 448.
- Seiler, F., recognition and evaluation of fruit wines, B., 601. Trester wines, B., 889.
- Seiler, R., determination of excitation function for mercury terms, A., 880.
- Seipp, F., and Internat. Precipitation Co., electrical precipitator [for gases], (P.), B., 26.
- Seith, W., dependence of electrical conductivity and self-diffusion in crystals on the crystallographic direction, A., 1000.
- and Keil, A., self-diffusion in solid lead. A., 669. Diffusion of metals in solid lead. III. Diffusion in gold-lead and silver-lead alloys, A., 1110.
- See also Hevesy, G. von.
- Seitz, F. See Wigner, E.
- Seitz, L. See Gundel, M.
- Seitz, W., muscle training, A., 856.
- Seka, R. See Kohlrausch, K. W. F., and Kopper, H.
- Sekera, F., utilisation of soil water by plants, B., 35. Water and nutrient supplies of plants, B., 440. Relationships between nutrient and water supply of plants, B., 726.
- Sekera, V. C., aryl *p*-bromobenzenesulphonates as derivatives for identification of phenols, A., 270.
- and Marvel, C. S., higher alkyl sulphonates, A., 256.
- Sekiguchi, H. See Ueno, Shigezo.
- Sekla, B. See Hluchovsky, B.
- Selbach, H. See Sopp, J. W.
- Selby, D. L. See Harding, V. J.
- Selby, W. M. See Gilman, H.
- Selden, R. F. See Spencer, H. M.
- Selden Co. See Daniels, L. C., Jaeger, A. O., Jewett, J. E., West, H. J., and Witzel, H. W.
- Selden Research & Engineering Corp. See Daniels, L. C., and Jaeger, A. O.
- Seledzhiev, G. N. See Tarassov, B. K., and Tilitschëev, M. D.
- Selényi, P. See Körösy, F. von.
- Seliber, G., decomposition of fats by micro-organisms, A., 97.
- Seliger, H. See Schmid, E.
- Seligman, R., nature of metals, B., 673.
- Seligsberger, L. See Bergmann, M.
- Selivanov, B. P., Ginsberg, A. S., and Nikolski, S. I., system  $2\text{FeO} \cdot \text{SiO}_2 \cdot \text{PoS}$ , A., 126.
- Selivanov, B. P., Pogodin, S. A., Zvyagin, A. A., Lifshitz, E. Y., and Jems-Levi, M. Y., elimination of arsenic from iron ores, B., 64.
- and Shultin, A. I., lead in gunmetal melts, B., 66.
- Tzaregorodtzev, I. D., and Aseev, N. P., Selivanov's calorimeter for determining heat of fusion of slag, B., 21.
- See also Ginsberg, A. S.
- Selivanov, M. P., and Korobkina, I. G., threads from sinews of large cattle, B., 662.
- Selke, W., titrimetric determination of small quantities of potassium, A., 244.
- Sell, H. M. See Huston, R. C.
- Seliger, E. L., changes in cellulose during maceration process in paper manufacture, B., 299.
- Sellei, C. See Kürti, L.
- Sellen. See Lenze, F.
- Sellerio, A., adhesion forces brought into play in freezing, A., 347.
- Sellschopp, W. See Schmidt, Ernst.
- Selski, V. A., tertiary deposits of the Grozni district, A., 483.
- Selvig, W. A., and Gibson, F. H., chlorine determination in coal, B., 531.
- and Pohle, W. D., losses of volatile matter in [analysis of] coal by standard method; water of hydration and carbon dioxide of mineral matter, B., 737.
- See also Nicholls, P.
- Selwood, P. W., influence of light on paramagnetic susceptibility, A., 664. Paramagnetism and molecular field of neodymium, A., 1002.
- and Frost, A. A., properties of heavy water, A., 1233.
- Selwyn, E. W. H., photo-electric instrument for comparing the strengths of coloured solutions, A., 586.
- Selye, H. See Collip, J. B.
- Selzer, H., substances in thymus and urine producing tetany. II. Occurrence of tetanising substances in urine of children and adults, A., 973.
- Semashko, V. See Vadimov, V.
- Semb, J. See Gardner, J. H.
- Semba, T., and Itoh, S., carbon black as a rubber filler. I. and II. Adsorption properties of carbon black, B., 31.
- Semenov, N., determination of probability of energy transfer during collisions, A., 1232. Upper pressure limit of ignition, A., 1248.
- Nalbandjan, A., and Dubowizky, mechanism of upper limit of inflammation of electrolytic gas mixtures, A., 572.
- Sementschenko, V. K., Erofeev, B. V., and Serpinski, V. V., properties of mixtures of electrolytes. II., A., 353.
- Semerano, G., polarographic studies with the dropping mercury cathode. II. Reduction of acetone, A., 131. Applications of the polarographic method, A., 243. Determination of the parachor by the drop-weight method. I., A., 1002.
- and De Ponte, G., polarographic studies with the dropping mercury cathode. III. Reduction of benzaldehyde, A., 131.
- and Fabbrani, G., determination of the parachor by the drop-weight method. II., A., 1002.
- Semet-Solvay Co. See Conklin, E. B., Knapp, W. R., Lawton, J. J., Mitchell, H. E., Torrey, B., jun., and Wingert, W. B.

- Semet-Solvay Engineering Corporation, coke ovens, (P.), B., 613.  
 See also Becker, *Joseph*, and King, *E. W.*  
 Semichon, *L.*, and Flanzky, *M.*, organic acids of grape-juice, A., 990. Determination of tartaric acid in musts and wines, B., 984.  
 Semmelbauer, *E.*, rosin and rosin size, B., 355.  
 Semmens, *G. S. C.* See Dann, *A. T.*, and Davies, *W.*  
 Semon, *W. L.*, and Goodrich Co., *B. F.*, [inhibitor for] cleaning and pickling of metals, (P.), B., 111. [Age-resisting] rubber composition and method of preserving rubber, (P.), B., 723. Preparation of rubber composition, (P.), B., 723. [Rubber] plastic composition, (P.), B., 757. Rubber composition and method of preserving rubber, (P.), B., 801.  
 Sloan, *A. W.*, and Goodrich Co., *B. F.*, preparation of aldehyde-amines, (P.), B., 906.  
 See also Goodrich Co., *B. F.*  
 Semple, *G. C.* See Imperial Chem. Industries.  
 Semproni, *A.* See Dansi, *A.*  
 Sen, *A.* See Chakravarti, *J. N.*  
 Sen, *A. K.* See Mukherjee, *J.*  
 Sen, *B. M.*, neutron in quantum mechanics, A., 1224.  
 Sen, *B. N.*, atomic distances for closest packing, A., 763.  
 Sen, *G. C.* See Das, *A. K.*  
 Sen, *H. K.*, technical aspects of gaseous explosions, A., 786.  
 See also Banerjee, *S. K.*, and Roy, *S. N.*  
 Sen, *K. C.*, mineral metabolism of farm animals, A., 743.  
 Sen, *R. N.*, and Mukherjee, *G. C.*, 6-aldehydro-4-methyl- $\alpha$ -naphthaprynone and dyes derived from it, A., 1168.  
 Sen-Gupta, *A. B.* See Neogi, *P.*  
 Sen-Gupta, *A. K.* See Ghosh, *P. N.*  
 Sen-Gupta, *M. M.*, and Alam, *M. S.*, physical significance of apparent irregularities in magneto-resistance curves of nickel, A., 1108.  
 Sen-Gupta, *P. K.* See Dutta, *A. K.*  
 Sen-Gupta, *Sailes C.* See Ray, (*Str*) *P. C.*  
 Sen-Gupta, *Suresh C.*, synthesis of santonine. I. Synthesis of homosantenic acid, A., 1049.  
 See also Bardhan, *J. C.*  
 Senderens, *J. B.*, catalytic decomposition in gaseous phase of esters of fatty acids by pumice and sulphuric acid, A., 697.  
 Sendlinger Optische Glaswerke G.m.b.H. See Jaeckel, *G.*  
 Sendo, *M.*, influence of composition of mixed acid on properties of nitrocellulose, B., 45. Theory of cellulose nitration, B., 300.  
 Sendzimir, *T. K.*, and Bostroem, *T. J.*, coating with metals [e.g., iron with zinc] by dipping, (P.), B., 234.  
 Senf, *H.* See Jander, *W.*  
 Senftleben, *H.*, formation of double molecules in gases under influence of an electric field, A., 11. Effect of a magnetic field on heat conductivity and viscosity of gases, A., 218.  
 and Pietzner, *J.*, effect of magnetic field on heat conductivity of gases. I., A., 559.  
 Senior, *J. C.*, and Sanford Mills, textile web-dyeing process, (P.), B., 623.  
 Senjuta, *N.* See Urazovski, *S.*  
 Senn, *M. J. E.* See Hartmann, *A. F.*  
 Sennewald, *K.*, decomposition of ozone in aqueous solution, A., 678.  
 Senseman, *C. E.*, and Stubbs, *J. J.*, catalytic oxidation of *p*-cymene in the liquid phase, A., 56.  
 Séon, *M.* See Matignon, *C.*  
 Sera, *S.* See Miki, *S.*  
 Serailian, *M. K.*, apparatus for concentrating fruit juices, (P.), B., 731.  
 Serb-Serbina, *N.*, effect of adsorption layers on disperse systems. III. Effect of surface-active substances on crystallisation processes in Liesegang rings, A., 221.  
 Serber, *R.*, depolarisation optical anisotropy, and the Kerr effect, A., 766. Statistical averages for perturbed systems, A., 763.  
 Serbinov, *A. I.* See Neumann, *M. B.*  
 Serdyukov, *V. G.*, treatment of thick copper boiler-plate and red merchant copper, B., 309.  
 Serebrennikova, *N. G.* See Volski, *A. N.*  
 Sereda, *J.* See Pilat, *S. con.*  
 Sereda, *S. E.*, influence of increased concentrations of soil solution on oil content in seeds of oil-bearing plants, B., 680.  
 Serfontein, *P. J.* See Scott, *H. M.*  
 Sergejeva, *E.* See Gubarev, *E.*  
 Sergienko, *P. S.*, determination of potassium, using lead-containing complexes. II.  $\text{Na}_2\text{PbCo}(\text{NO}_2)_6$ , A., 42.  
 Serini, *A.*, natural and synthetic menthol, B., 939.  
 Serio, *F.*, and Indovina, *R.*, experimental variation of distribution and excretion of medicinal preparations, A., 979.  
 Serono, *C.*, and Cruto, *A.*, photo-active emanations from irradiated organic substances, A., 359, 1103.  
 Serpinski, *V. V.* See Sementschenko, *V. K.*  
 Serrallach, *J. A.*, Jones, *G.*, and Owen, *R. J.*, strength of emulsifier films at liquid-liquid interfaces, A., 900.  
 Serruys, *M.*, [character of] detonation [in knock in internal-combustion engines], B., 293.  
 Server, *H. W.*, paper manufacture, (P.), B., 700.  
 Servigne, polonium acetylacetonate, A., 241.  
 Servy, *J.*, cultivation of potatoes under [mulching] paper, B., 1028.  
 Sessions, *A. C.*, and Shive, *J. W.*, effect of culture solutions on growth and nitrogen fractions of oat plants at different stages of their development, B., 564.  
 Sessions, *R. F.* See McBain, *J. W.*  
 Sessions, *R. L.*, and Molybdenum Corp. of America, preparation of carbides [of cobalt and tungsten], (P.), B., 593.  
 Sessler, *P.* See Zervas, *L.*  
 Sessous, *G.*, and Rohweder, *M.*, determination of dry matter in pulpy materials rich in carbohydrates, e.g., beet, potatoes, chicory, B., 1082.  
 Seta, *M.*, surface tension of liquids, A., 213. Neutralisation diagram, A., 368.  
 Seth, *G. L.* See Dhirga, *D. R.*  
 Seth, *S. R.* See Gulati, *K. C.*  
 Sethi, *J. R.* See Brautlecht, *C. A.*  
 Seto, *K.* See Kôzu, *S.*  
 Setôh, *S.*, and Miyata, *A.*, anodic film of aluminium. I. Effect of concentration of the electrolyte on formation of anodic film. II. Anodic behaviour of aluminium in aqueous solutions of oxalic acid, A., 29. Anodic films of aluminium and their applications, A., 1254.  
 Sette, *N.* See Hemmeler, *A.*  
 Setterberg, *I.*, porous refractory articles, (P.), B., 670.  
 Setz, *P.*, photochemical changes of irradiation products of ergosterol, A., 500.  
 Seufferling, *F.* See Pietsch, *E.*  
 Seuthe, *S.*, suction funnel for rapid filtration, A., 480.  
 Sevag, *M. G.*, mechanism of decarboxylation, A., 867. Differentiation of virulent and non-virulent pneumococci (type I), A., 867. Relation between enzymic activity, morphology, and resistance to stains of butyric acid bacteria, and mechanism of residual respiration, A., 1206. Mechanism of respiration of pneumococci, A., 1333.  
 See also Wieland, *H.*  
 Severin, *B. A.* See Braunstein, *A. E.*  
 Severin, *E.*, characteristics of Rumanian petroleum, B., 818.  
 Ševiale, *V. S.*, amorphous silicio acid and sesquioxide in soils of White Russia, B., 1024.  
 Sevin, *E.*, spontaneous absorption of radiation and deviation of spectral lines of nobule, A., 881. Nature of waves and corpuscles, A., 1226.  
 Seward, *R. P.*, distribution method for determining dissociation pressures of salt ammoniates, A., 120. Indium sulphate, A., 917.  
 Sewell, *C. W.*, carbonisation of briquettes, (P.), B., 339.  
 Sewell, *M. C.* See Gainey, *P. L.*  
 Sewell, *R. B. S.*, temperature and salinity of deeper waters of Bay of Bengal and Andaman Sea, A., 691.  
 Sexl, *T.*, nuclear scattering of  $\beta$ -rays, A., 443. Quantitative theory of radioactive  $\alpha$ -emission, A., 443. Spin and statistics of the neutron, A., 995.  
 Sexton, *W. A.* See Imperial Chem. Industries.  
 Seyer, *W. F.*, treatment of [rancid] nuts, (P.), B., 42. Drying of natural sodium carbonate, (P.), B., 624. Conversion of fatty and waxy substances into petroleum hydrocarbons, B., 1042. and King, *E. G.*, systems of sulphur dioxide and hydrogen derivatives of benzene, A., 1013.  
 Seyewetz, *A.*, azoimido anti-fogging substances, B., 205. Fine-grain images from coarse-grain emulsions, B., 940.  
 Seyfarth, *H.*, electron and proton spin moments, A., 440.  
 Seyl, *R. G.* See Thompson, *M. de K.*  
 Seyler, *C. A.*, relation between volatile matter and elementary composition of coal, B., 899.  
 Seymour, *A. W.*, protective coating, (P.), B., 800.  
 Seymour, *M. W.*, and Eastman Kodak Co., photographic colour process, (P.), B., 1037. Colour-photographic material, (P.), B., 1037.  
 See also Kodak, Ltd.  
 Sezawa, *K.*, viscous damping of vibrating metal bars, A., 668.  
 Sgarzi, *L.* See Mezzadrolì, *G.*  
 Shabanova, *R.* See Fabritziev, *B.*  
 Shabetai, *C. R.* See Bouvier.  
 Shabotinskaja, *V. E.* See Lichoscherstov, *M. V.*  
 Shacklock, *C. W.*, stress-strain relationships of vulcanised indiarubber. I. Inflection point. II. Elasticity and structure, B., 640.  
 See also Scott, *J. R.*

- Shadbolt, *F. S.*, manufacture of conversion products of rubber and of chlorinated and brominated products thereof, (P.), B., 881.
- Shaeffer, *W. E.* See Baxter, *G. P.*
- Shaeffer, *E. J.*, Brown, *E. P.*, and Standard Oil Co., cracking system [for hydrocarbon oils], (P.), B., 52.
- Shaf, *M.* See Speers, *P. C.*
- Shaffer, *M.* See Chang, *T. H.*
- Shaffer, *P. A.*, reaction velocity and the "equi-valence-change principle," A., 678.
- and Somogyi, *M.*, copper-iodometric reagents for sugar determination, A., 699.
- Shaffer, *R. W.*, rapid method for distinguishing bleached sulphate from bleached sulphite [in pulp and paper], B., 223.
- Shaffer, *S. S.*, and Pollock, *J. E.*, corrosion in non-pressure [petroleum] refining equipment, B., 659.
- Shah, *C. C.* See Partington, *J. R.*
- Shah, *L. D.* See Ingold, *C. K.*
- Shah, *M. S.*, and Bhatt, *C. T.*, 5-sulpho-3-nitro- and 5-sulpho-3-hydroxy-benzoic acid, A., 1293.
- Bhatt, *C. T.*, and Kanga, *D. D.*, thiols derived from *o*-, *m*-, and *p*-methoxytoluenes and -benzoic acids, A., 1292.
- Shah, *R. C.* See Robinson, *R.*
- Shah, *S. V.*, and Pishavikar, *D. G.*, acyl derivatives of arylamines, A., 153.
- Shahinian, *L.* See Truesdail, *R. W.*
- Shakhno, *A. P.* See Mikulina, *N. V.*
- Shakhov, *G. A.*, Margolina, *S. S.*, and Gladkov, *G. I.*, preparation of ferrous sulphide from ferric oxide and sulphur dioxide, B., 145.
- and Slobodska, *Y. Y.*, roasting of concentrates containing mercury and antimony and their separation by successive roasting, B., 194.
- Shallock, *E. W.*, and Amer. Ore Reclamation Co., fine sinter returns, (P.), B., 632.
- Shand, *E. B.* See Westinghouse Electric & Manufg. Co.
- Shand, *S. J.*, composition and genesis of the alkali-rocks of South Africa, A., 692.
- Shannon, *A. A.*, and Eastman Kodak Co., printing ink for photographic film, (P.), B., 837.
- Shapiro, *B. G.*, and Zwarenstein, *H.*, influence of administration of arginine and histidine on excretion of creatinine, A., 183.
- Sharavski, *P. V.* See Nasledov, *D. N.*
- Sharlit, *H.*, determination of indoxyl compounds in urine, A., 301.
- Sharma, *J. N.*, and Food Machinery Corp., treatment of fruit to remove spray residues, (P.), B., 683.
- Sharma, *P. N.* See Mohammad, *W.*
- Sharma, *R. D.*, and Dhar, *N. R.*, preparation and properties of highly concentrated sols. III. Sols of zirconium hydroxide, A., 123.
- Sharma, *R. S.* See Saha, *M. N.*
- Sharon Steel Hoop Co. See Hughes, *J. M.*, and Marsh, *H. S.*
- Sharp, *C. H.*, and Eckweiler, *H. J.*, photoelectric comparator for precise and rapid measurement of reflexion and transmission, A., 925.
- Sharp, *D. E.*, chemical composition of commercial glasses, B., 704.
- See also Lyle, *A. K.*
- Sharp, *J. G.* See Lovern, *J. A.*
- Sharp, *P. F.*, and De Tomasi, *J. A.*, increase in non-lactic acidity in raw cream and its control, B., 489.
- Sharp & Dohme, Inc. See Read, *R. R.*
- Sharpe, *F. H.*, treatment of argentiferous manganese ores, (P.), B., 70.
- Sharples, *G. R.*, and McCollum, *E. V.*, is fluorine an indispensable element in the diet? A., 632.
- Sharples Separator Co. See Wendt, *H. D.*
- Sharples Specialty Co., and Jones, *L. D.*, distillation [of lubricating oils], (P.), B., 215.
- See also Jones, *L. D.*
- Shaw, *A. N.*, rapid derivation of thermodynamic relations, A., 351.
- Shaw, *A. O.* See Woods, *E.*
- Shaw, *B. D.*, and Wagstaff, *E. A.*, reaction between 2-picoline and aromatic aldehydes, A., 282. Nitration of  $\beta$ -phenylethylpyridines and related compounds. I., A., 282.
- Shaw, *C.* See Imperial Chem. Industries.
- Shaw, *C. G.*, and Hoffman, *J.*, leather and products used in connexion therewith, (P.), B., 161.
- Shaw, *D. D.* See Nevens, *W. B.*
- Shaw, (*Miss*) *F. R.*, and Turner, *E. E.*, stereochemistry of 2,2'-disubstituted diphenyls. III. Optical resolution of *o*-(2-dimethylaminophenyl)phenyltrimethylammonium iodide, A., 388.
- Shaw, *G. S.* See Carmichael, *C. M.*
- Shaw, *G. T.*, and McKibbin, *R. R.*, soluble sesquioxides and organic matter from alkali treatment on soils, B., 560.
- Shaw, *J. A.*, treatment [purification] of hydrocarbon oil, (P.), B., 259.
- Shaw, *L. I.* See Western Electric Co.
- Shaw, *M. B.* See Rasch, *R. H.*, and Whittier, *E. O.*
- Shaw, *P. A.*, toxicity and deposition of thallium in birds, A., 1079. Colorimetric determination of thallium [in rodenticides], B., 494.
- Shaw, *P. E.*, and Leavey, *E. W. L.*, triboelectricity and friction. VII. Quantitative results for metals and other solid elements, with silica, A., 117.
- Shaw, *R. W.*, OH band, 3064 Å., and the solar spectrum, A., 207. OH bands and the ultra-violet line spectrum of the Wehnelt interrupter, A., 207.
- Shaw, *T. P. G.* See Canadian Electro Products Co., and Morrison, *G. O.*
- Shaw, *W. M.* See MacIntire, *W. H.*
- Shcherbacheva, *M. A.*, analysis of metol, B., 216.
- Shchukin, *I.* See Glazkovski, *V. A.*
- Shear, *M. J.* See Washburn, *M. L.*
- Sheard, *N. M.* See Wiesner, *B. P.*
- Shearer, *W.*, control of plasticities of ceramic slip, B., 19.
- Shearer, *W. N.* See Redburn, *W. T.*
- Shedden, *F.* See Courtaulds, Ltd.
- Shedlovsky, *T.* See MacInnes, *D. A.*
- Shee, *P. B.*, and Sears, Roebuck & Co., [centrifugal] separator [for cream, etc.], (P.), B., 130.
- Sheehy, *E. J.*, effect of dietary fat on the fat of cow's milk, A., 412. Effect of conditions of storage on vitamin-D potency and other features of cod-liver oil, B., 974.
- Sheel, *H.* See Electrical Research Products, Inc.
- Sheely, *M. L.*, glycerol viscosity tables, A., 17.
- Sheen, *R. T.*, nomograph for rapid calculation of sulphate: carbonate ratios, A., 927.
- Sheeran, *A. J.* See Dempster, Ltd., *R. & J.*
- Sheets, *G.* See Brown, *M. G.*
- Sheffield, *F. M. L.*, virus diseases and intracellular inclusions in plants, A., 546.
- Sheibley, *F. E.* See Lange, *N. A.*
- Sheinkman, *A. I.* See under Scheinkmann, *A. J.*
- Shelberg, *E. F.* See Tabern, *D. L.*
- Sheldon, *D. E.* See Pierce, *H. B.*
- Sheldon, *H. E.*, and Allegheny Steel Co., treatment of steel sheets, (P.), B., 195.
- Sheldon, *J. H.*, influence of copper and manganese on therapeutic activity of iron, A., 312.
- and Ramage, *H.*, spectrographic analysis of the metallic content of meconium, A., 851.
- See also Ramage, *H.*
- Sheldon, *W.* See Ramage, *H.*
- Shell Development Co. See Bent, *F. A.*, Deanesly, *R. M.*, De Simó, *M.*, Heath, *F. W.*, Lewis, *R. I.*, Millar, *R. W.*, Moxer, *F. R.*, Pyzel, *D.*, and Voogt, *G.*
- Shellabarger, *W. L.*, and Shellabarger Grain Products Co., soya-bean flour, (P.), B., 570, 891\*.
- Shellabarger Grain Products Co. See Shellabarger, *W. L.*
- Shellastic, Inc. See Cholerton, *C.*
- Shelley, *R. L.* See Brown, *O. W.*
- Shelling, *D. H.*, effect of dietary calcium and phosphorus on toxicity of lead in the rat, A., 1329.
- Shellshear, *W.*, separation of the constituents of natural gas, B., 849.
- Shelton, *F. A.* See Hester, *J. B.*
- Shen, *T.* See Sah, *P. P. T.*
- Shenango-Penn Mold Co. See Ream, *H. S., jun.*
- Shenstone, *A. G.*, hyperfine structure in the copper spectrum, A., 199.
- Shepard, *A. F.*, and Johnson, *J. R.*, rearrangement of unsaturated  $\alpha\delta$ -glycols;  $\beta$ -methyl- $\Delta^2$ -buteno- $\alpha\delta$ -diol, A., 47.
- Shepard, *J. H.*, and Standard Oil Co., petroleum liver fuel, (P.), B., 215.
- Shepard, *N. A.*, a century of technical progress in the rubber industry, B., 200.
- Sheperd, *E. S.*, and Stewart, *A. D.*, building board, (P.), B., 830.
- Sheperd, *L. E.* See under Sheperd, *E. S.*
- Shepherd, *E. S.* See Greig, *J. W.*
- Sheppard, *S. E.*, structure of xerogels of cellulose and derivatives, A., 226.
- Beal, *C. L.*, and Amer. Anode, Inc., electrodeposition of organic material [rubber], (P.), B., 277.
- Dietz, *H. J.*, and Eastman Kodak Co., ultra-violet sensitive layer, (P.), B., 685.
- and Eastman Kodak Co., cellulose acetate, (P.), B., 620.
- and Houck, *R. C.*, structure of gelatin sols and gels. V. Insolubilisation of gelatin by heat, A., 124.
- and Newsome, *P. T.*, heats of wetting of cellulose acetate by aliphatic alcohols and aromatic hydrocarbons, A., 459.
- See also Kodak, Ltd.
- Sheppard, *S. R.*, coating of iron or steel, (P.), B., 111. [Aluminium] pigments, (P.), B., 514.
- Sherman, *A.* See Taylor, *H. S.*
- Sherman, *C. S.* See Du Pont de Nemours & Co., *E. I.*

- Sherman, G. W. See Lurie, H. H.  
 Sherman, H. See Horwitz, M. K.  
 Sherman, H. C., and Derbigny, I. A., vitamin-B<sub>2</sub> and protein intake, A., 325.  
 and Halliday, N., adsorption experiments with vitamins-B (B<sub>1</sub>) and -G (B<sub>2</sub>), A., 324.  
 Sherman, J., Madelung constants for cubic crystal lattices, A., 12.  
 See also Pauling, L.  
 Sherman, J. M., and Cameron, G. M., mechanism, vitalism, and growth of bacteria, A., 984.  
 and Wilbur White Chem. Co., propionic acid fermentation by mixed strains of propionic bacteria, (P.), B., 568.  
 Sherman, R. See Bunzell, H. H.  
 Sherman, R. T. See Taylor, T. C.  
 Sherrard, E. C., and Kurth, E. F., crystalline colouring compounds in redwood extract, A., 615. Distribution of extractive in redwood; its relation to durability, B., 347.  
 See also Anderson, A. B.  
 Sherratt, G. G. See Kaye, G. W. C.  
 Sherrill, E., determination of potassium, (P.), B., 60.  
 Sherrill, M. See Joslyn, M. A.  
 Sherwin, C. P. See Ambrose, A. M., and Harrow, B.  
 Sherwin-Williams Co. See Holton, E. C.  
 Sherwood, C. F., and Manganese Bronze & Brass Co., porous metal [iron], (P.), B., 552.  
 and Moraine Products Co., copper powder, (P.), B., 312.  
 Sherwood, G. R., and Hopkins, B. S., rare earths. XXXIII. [Relative] basicity, A., 1008.  
 Sherwood, R. C., testing new wheat varieties, B., 488.  
 Andrews, J. S., Wade, W. B., and Bailey, C. H., march of acidity in wheat germ during storage, B., 487.  
 Sherwood, R. M., lime and phosphoric acid requirement for chicks, A., 632.  
 Sherwood, T. K., and Comings, E. W., drying of solids. V. Mechanism of drying of clays, B., 347.  
 See also Gilliland, E. R.  
 Sherwood, W. N., beating of paper pulp, (P.), B., 382.  
 Shestakoff. See under Tschestakoff.  
 Shevchenko, A., production of chromium-tungsten steel in the basic open-hearth furnace, B., 308.  
 Shew, F. L., rubber product, (P.), B., 801.  
 Shiba, K., most probable values of  $e$ ,  $e/m$ , and  $h$ . II, A., 884.  
 Shibasaki, Y. See Goto, K.  
 Shibata, E. See Ishikawa, F.  
 Shibata, F. L. E., Oda, S., and Furukawa, S., thermodynamic studies on potassium and sodium sulphates, A., 676.  
 and Taketa, T., thermodynamic studies in silver chloride and silver bromide, A., 26.  
 Shibata, K., and Yakushiji, E., reaction mechanism of photosynthesis, A., 577.  
 Shibata, R., and Nishi, T., triarylaminoethylenes. V. Action of sulphur on tri-*p*-tolylaminoethylene, A., 1286.  
 Okuyama, M., Kojima, N., and Nishi, T., triarylaminoethylenes. III. Interaction of sulphur and trianilinoethylene. IV. Interaction of sulphur and tri-*o*-toluidinoethylene, A., 1286.  
 Okuyama, M., and Okamura, K., Sandmeyer indigo synthesis, A., 1308.  
 Shibata, Z., and Mori, I., reduction equilibrium between metal oxide and hydrogen. I. Measurement of  $\text{CoO} + \text{H}_2 \rightleftharpoons \text{CO} + \text{H}_2\text{O}$  by a new method, A., 783.  
 Shibuya, S., fate of dehydrocholic acid in the dog, A., 524, 974.  
 and Tanaka, Toshiyuki, bile acids from fistulary bile of rabbits, A., 968.  
 Shield, W. C., vacuum regulator, (P.), B., 96.  
 Shiffler, W. H., Anderson, W. P., and Standard Oil Co. of California, aluminium chloride, (P.), B., 828.  
 Holm, M. M., Miller, Marvin F., and Standard Oil Co. of California, treatment [dechlorination] of oils, (P.), B., 499.  
 and Standard Oil Co. of California, treatment of metallic halide residue, (P.), B., 386.  
 See also Halloran, R. A.  
 Shih-Yuan, S., magnetic spectra of the  $\beta$ -rays emitted by thorium-B + C + C' + C'' and actinium-B + C + C' + C'', A., 334.  
 Shiina, S., nonadecic acid, A., 1275.  
 Shikata, M., and Hozaki, N., reduction potential of organic compounds. XIV. Dinitrophenols, A., 785.  
 and Tachi, I., reduction potential of organic compounds. XIII. Azobenzene. XVI. *p*-Aminoazobenzene, A., 785, 1121.  
 and Taguchi, E., reduction potential of organic compounds. XV. Nitroanilines, A., 785.  
 Shildneck, C. H. See Washburn, E. R.  
 Shimada, J., experimental scurvy. XVI. Effect of irradiated narcotine, A., 987.  
 Shimada, K., and Kimishima, T., diphenylguanidine, A., 944.  
 Shimada, Keiichi, nature of action of organic accelerators for vulcanisation. I. Action on rubber sols. II. Special properties of organic accelerators. III. Action of Ostromisslenski's vulcanising agents on rubber sols. IV.—VI. Detection and analysis of organic accelerators. VII. Effect of heat on surface tension of rubber solutions, B., 32, 400, 437, 640, 880.  
 Shimadzu, S., arrangement of the microcrystals in the graphite flakes segregated from solidifying pig iron, A., 768.  
 Shimasaki, S., electron spin, A., 335.  
 Shimer, W. R., Daniels, F. C. T., and Bethlehem Steel Co., silico-molybdenum steel and article made therefrom, (P.), B., 924.  
 Shimizu, J., variations in growth-accelerating power of chicken embryo juice on cultivated tissues *in vitro*, A., 631.  
 Shimizu, M., and Iwasa, Y., detection and determination of sucrose in milk by means of phloroglucinol, B., 682.  
 Shimizu, S., variation of true and apparent electrical resistivity of quartz with temperature, A., 9. Electrical conductivity of tridymite and cristobalite at their transformation temperatures, A., 338. Electrical properties of calcite, A., 1230.  
 Shimizu, T., Oda, T., and Makino, H., cholatrienic acid, A., 272.  
 Shimizu, Y., magnetic susceptibility of several systems of binary alloys, A., 455.  
 See also Honda, K.  
 Shimmura, T., caking constituents and coking property of coal, B., 209.  
 and Nomura, H., caking phenomena of coals and method of testing, B., 209.  
 Shimokawa, H. See Hirohata, R.  
 Shimomura, K., effect of preheating on caking and swelling properties of coal, B., 372.  
 Shimoyama, K. See Uchida, S. O.  
 Shin, H., beri-beri of pregnancy, puerperium, and infancy. I. Vitamin-B content of urine and various tissues of normal rabbits fed with complete diet. II. Pregnant rabbit, foetus, placenta, and show. III. Urine, milk, and tissues of puerperal rabbits, A., 1323.  
 Shinn, H. See Tartar, H. V.  
 Shinoda, G., X-ray investigations of thermal expansion of solids. I, A., 767. Eutectoid transformation of bronze, B., 672.  
 Shinoda, Y. See Sakurada, I.  
 Shinohara, K., diffraction of cathode rays by single crystals. III. Simultaneous reflexion, A., 108.  
 Shinohara, U. See Toriyama, Y.  
 Shintre, V. P., and Rao, B. Sanjiva, essential oil from leaves of *Cinnamomum zeylanicum*, Breyne, B., 250.  
 Shipalin, P. P. See Eliseev, A. G.  
 Shipley, V. See Bayfield, E. G.  
 Shipley, J. W., sulphur content of crude naphtha from Turner Valley in relation to refining practice, B., 418.  
 Shipp, H. L. See McCance, R. A.  
 Shipp, V. L. See Beard, J. C.  
 Shirahama, K. See Takahashi, E.  
 Shirai, S. See Tsunoda, T.  
 Shiraishi, T., colloidal alkaline-earth carbonate, (P.), B., 385.  
 Shiraishi, Y. See Gen. Electric Co.  
 Shirer, J. W., Duncan, W., and Haden, R. L., hyperproteinemia due to Bence-Jones protein in myelomatosis, A., 181.  
 Shirodkar, A., measurement of temperature of a coal-gas flame by "a-particle method," B., 337.  
 Shirrefs, H. K., and Evans, A. F., elutriation and microscopical examination of finely-ground mineral grains, B., 792.  
 Shishido, H. See Goto, K.  
 Shisler, G. M., and Casein Manufg. Co. of America, adhesive material containing casein, (P.), B., 725.  
 Shive, J. W. See Sessions, A. C., and Stahl, A. L.  
 Shlapin, V. M., precipitation of barium sulphate in presence of ferric salts, A., 137.  
 Shmelev, L. A., swelling working state, and shrinkage of clays, B., 228.  
 Shnaidman, L. O., and Zelikman, I. F., refining of beet sugar without recrystallisation, B., 87.  
 See also Zelikman, I. F.  
 Shneerson, A. L. See Kagan, M. Y.  
 Shnidman, L., solubility of thiocarbamide in water, methyl alcohol, and ethyl alcohol, A., 897.  
 Shoeld, M., and Koppers Co., purification of sulphur [recovered from fuel gases], (P.), B., 61.  
 and Koppers Co. of Delaware, concentrated ammonia liquor, (P.), B., 535. Removing one or more volatile constituents from a liquid or gas, (P.), B., 657.  
 Shoemaker, H., and Mallory & Co., Inc., P. R., electrode elements for rectifiers, (P.), B., 554.  
 Shohl, A. T., Brown, H. B., Chapman, E. C., Rose, C. S., and Saurwein, E. M., evaluation of the phosphorus deficiency of the rickets-producing diet, A., 1192.  
 Shoikhet, I. I. See Mintz, I. B.



- Shoji, K., flavour of "Kasutorishōchū," B., 328.
- Shoji, K., and Suzuki, E., change of water-soluble phosphoric acid content of superphosphate during storage in bulk. VII. Reaction between monocalcium phosphate and iron oxide. VIII. and IX., B., 17, 784.
- Shōjino, M. See Sakurada, I.
- Shonka, J. J., effect of temperature on intensity of X-rays scattered by powdered sodium fluoride, A., 767.
- Shonle, H. A., and Lilly & Co., E., ethyl- $\alpha$ -methylbarbituric acid and its intermediates, (P.), B., 251. Substituted malonic esters, (P.), B., 260. Ethanolamine [ $\beta$ -hydroxyethylamine] salts of theophylline, (P.), B., 1084.
- Shope, W. A. See Mutersbaugh, G. H.
- Shopee, C. W., symmetrical triad prototropic systems. IX. Influence of polynuclear aryl groups on mobility and equilibrium in the  $\alpha$ -diarylmethylene-azomethine system, A., 274. Effect of nuclear halogen substituents on triad prototropic systems in relation to aromatic side-chain reactions, A., 1151.
- See also Burton, H.
- Shorr, E. See Loebel, R. O.
- Short, C. L. See Bauer, W.
- Short, J. J., Sumner's method for [determining] sugar in urine, A., 1188.
- Short, M. S. See Bailey, G. H.
- Short, W. F. See Anderson, A. R., Murray, J. T., and Rapson, W. S.
- Short Milling Co., J. R. See Haas, L. W.
- Shortley, G. H., transformations in the theory of complex spectra, A., 440. Energy levels of the rare-gas configurations, A., 1226.
- See also Ufford, C. W.
- Shotwell, J. S. G. See McKee, R. H.
- Shoupp, W. E. See Kruger, P. G.
- Shoyket, D. See Ageev, N.
- Shrawder, J., jun., validity of Raoult's law in molten solutions of lead chloride and lead bromide, A., 669.
- Shreve, F., and Mallery, T. D., relation of caliche to desert plants, B., 323.
- Shreve, R. N., equipment for nitration and sulphonation, B., 95.
- See also Peffer, H. C.
- Shrewsbury, C. L., and Kraybill, H. A., carotene content, vitamin-A potency, and anti-oxidants of butter-fat, A., 1087.
- Shrewsbury, J. F. D., chemistry of the liquor amnii, A., 625.
- Shrikhande, J. G., production of mucus during decomposition of plant materials. I. Effect of environmental conditions. II. Effect of changes in the flora, A., 1334. Degree of humification in manures measured by the use of hydrogen peroxide, B., 403.
- Shriner, R. L., Fulton, J. M., and Burks, D., jun., ternary system palmitic, margaric, and stearic acids, A., 570. and Parker, E. A., asymmetric syntheses. II. Action of optically active nitrates on cyclic ketones, A., 394.
- See also Ashley, W. C., Conard, (Miss) V. A., Horne, W. H., Pezold, M., Sohl, W. E., Stutz, R. E., and Teeters, W. O.
- Shrivastava, D. L. See Hughes, T. A.
- Shriver, L. C. See Carbide & Carbon Chemicals Corp.
- Shroyer, J. H. See Rising, M. M.
- Shternov, V. A. See Klarmann, E.
- Shubin, M. I., determination of small quantities of zinc in aluminium, B., 970.
- Shukov, I. See Chmutov, K.
- Shull, C. A., and Mitchell, J. W., stimulative effects of X-rays on plant growth, B., 643.
- Shull, G. O. See Yost, D. M.
- Shull, W. E., control of cattle louse (*Bovicola bovis*, Linn.), B., 245.
- Riley, M. K., and Richardson, C. H., effects of toxic gases on blood of the cockroach, *Periplaneta orientalis*, Linn., A., 186.
- Shultin, A. I. See Selivanov, B. P., Skorohelletti, V. V., and Ver, O. I.
- Shumaker, J. B., and Buchanan, J. H., a study of caramel colour, B., 120, 166.
- Shumilov, A. A., and Groshev, P. K., drying of beets after centrifuging of raw beet cossettes and fabrication of sugar from the juice, B., 165.
- Shumkov, B. P. See Pshenichni, A. M.
- Shumovski, G., treating cracked gasolines with solid soda and anhydrous lime, B., 99.
- Shustova, E. N. See Kudzin, Y. K.
- Shuttschov, E. N. See Sokolovski, B. A.
- Shutt, F. T., and Hamilton, S. N., close grazing system of pasturage, B., 359.
- Shutt, R. S., and Mack, E., jun., retention of glycerol and glycols by cellophane and cotton cellulose, B., 619.
- Shutt, W. J., and Walton, A., formation of oxide films on gold and iron, A., 1242.
- Shvedov, D. A., and Andreeva, A. I., oxidation of balthashito and Barzas sapropelites, B., 900.
- Shwachman, H. See Horwood, M. P.
- Sialco, Inc. See Kraus, C. E.
- Sibaiya, L., and Venkataramiah, H. S., diamagnetic susceptibilities of liquid mixtures with a new apparatus, A., 455.
- Sibbald, W. R., chemistry and nutrition, A., 417.
- Sibille, J., manufacture of a preservative agent against moths, etc., (P.), B., 1047.
- Sibirsky, W., method of fractionating the mineral matter of soil, B., 201.
- Sibley, R. L., and Rubber Service Labs. Co., vulcanisation of rubber, (P.), B., 558, 1023. Retarder for use in rubber-vulcanisation process, (P.), B., 1023.
- See also Rubber Service Labs. Co.
- Sica, C. See Marotta, D.
- Siehkarenko, A. I. See Zelikman, I. F.
- Sidac Société Industrielle de la Cellulose, Soc. Anon., threads and similar filaments for manufacture of textile-like products, particularly fabrics, (P.), B., 1051.
- Siddappa, G. S., organic materials as direct sources of plant nutrition, B., 36.
- See also Subrahmanyan, V.
- Siddiqui, R. H. See Siddiqui, S.
- Siddiqui, S., and Pillay, P. P., alkaloids of *Holarrhena antidysenterica*. I. Three new alkaloids from the bark of Indian *Holarrhena*; isolation and purification of conessine, A., 289.
- and Siddiqui, R. H., alkaloids of *Rauwolfia serpentina*, Benth. I., A., 289.
- Siderfin, N. E. See Gas Light & Coke Co.
- Sidersky, D., Toury process of coagulation of raw [beet] juice by means of sulphurous acid, B., 38. Determination of invert sugar by the thiocyanoidometric method, B., 279.
- Sidgwick, N. V., Sutton, L. E., and Thomas, W., dipole moments and structures of the organic azides and aliphatic diazo-compounds, A., 555.
- See also Davy, L. G.
- Sidney, A. A. See Bryce, Ltd.
- Sido, M., saponification and finishing of soap, B., 1016.
- Sidon, W. See Abel, E.
- Sidwell, A. E. See Johnson, W. C.
- Sieb, A. See Ziegler, K.
- Siebel, G. See Schmid, E.
- Siebeneicher, H., phosphoric acid and phosphatic fertiliser industries, B., 933.
- Siebenmann, C., concentration and purification of diphtheria toxoid, A., 318.
- Siebert, W. J., effect of potassium iodide on basal metabolism and respiratory quotient in thyroidectomised guinea-pigs, A., 1199.
- and Thurston, E. W., effects of combinations of potassium iodide with anterior pituitary and with thyroid on basal metabolism in guinea-pigs, A., 98.
- Siebert, W. W., and Seffert, H., physical proof of existence of Gurwitsch radiation by means of a differential arrangement, A., 336.
- Siebert G.m.b.H., G., [precious metal] thermocouples, (P.), B., 70. Catalytic reactions and [phenium] catalysts for use therein; [oxidation of ammonia], (P.), B., 197.
- Siebertz, K., determination of  $e/m$  for "thread" rays, A., 5.
- Siecke, H. See Kohlschütter, H. W.
- Siecke, W., electrolytic production of metals of the alkalis or alkaline earths [alloyed with heavy metal], (P.), B., 715.
- Siedel, W., and Fischer, Hans, constitution of bile pigment. X. Constitution of bilirubin; syntheses of neo- and isoneo-xanthobilirubin acid, A., 404.
- See also Fischer, Hans.
- Siegbahn, M., correction calculations for X-ray spectrometers, A., 340. Extreme ultra-violet and very soft X-ray region, A., 1097.
- Siegel, H., desulphurisation of steel with alkalis in the coreless induction furnace, B., 789. Preparation of slag-resistant crucibles for coreless induction furnace, B., 795.
- Siegel, J. See Fradkin, W. Z.
- Siegel, S. L. See Dingwall, A.
- Siegel, W., theory of industrial filtration, B., 287.
- Sieger, G. N., Weiger, J. A., and Mallory & Co., Inc., P. R., [tungsten] metal alloys for electrical contacts, (P.), B., 70.
- Siegler, J., staining of diphtheria bacilli, A., 866.
- Sieglerschmidt, H., expansion of zinc with rise in temperature, B., 24. Influence of deformation and annealing on the coefficient of thermal expansion of copper, B., 550.
- Siegmund, H. O., and Bell Telephone Labs., electrolytic device, (P.), B., 397.
- Siegmund, R. See Remy, H.
- Siehrs, A. E., and Miller, C. O., disappearance of vitamin-C from adrenals of scorbutic guinea-pigs, A., 1091.
- Sieling, D. H. See Scott, H. M.
- Sielisch, J., and Sandke, R., occurrence of phenanthridine in coal tar, A., 400.
- Siemens-Elektro-Osmose Ges.m.b.H., corrosion-resisting coatings on aluminium or aluminium alloys, (P.), B., 474.

- Siemens & Halske Akt.-Ges., electrical apparatus and electrodes therefor, (P.), B., 25. Copper-beryllium-manganese alloy, (P.), B., 69. Improvement of nickel-alkaline-earth metal alloys, (P.), B., 69. Cores of compressed magnetisable powder [iron alloys], (P.), B., 153. Production of firmly adherent galvanic deposits on aluminium and its alloys, (P.), B., 196. [Electrolytic] water-decomposition cells having filter-press construction, (P.), B., 512. Moulding of non-plastic metallic oxides, (P.), B., 626. Production of galvanic deposits on aluminium and its alloys, (P.), B., 795. Rubber mixture for insulation purposes, especially for insulation of marine communication cables, (P.), B., 838. Electrolytic gas generator, (P.), B., 926. Cement, especially for cementing the middle electrode for sparking plugs, (P.), B., 966.
- and Kroll, W., improving the mechanical and magnetic properties of iron-nickel-beryllium alloys, (P.), B., 592. See also Deuts. Edelstahlwerke A.-G., Engelhardt, V., Masing, G., Neumann, Hans, Reiter, T., and Swinne, R.
- Siemens-Lurgi-Cottrell-Elektrofilter-Ges. m.b.H. für Forschung & Patentverwertung, electrical separation of suspended particles from gaseous fluids, (P.), B., 973.
- Siemens-Planawerke Akt.-Ges. für Kohlefabrikate, thermocouples, (P.), B., 608.
- Siemens-Reiniger-Verfa. Ges. für medizinische Technik m.b.H., fluorescent screen [for X-ray work], (P.), B., 875.
- Siemens-Schuckertwerke Akt.-Ges., tools and implements of aluminium oxide, (P.), B., 20. Electric tubular furnaces, (P.), B., 554. Insulating substance for electrotechnical purposes, (P.), B., 637.
- See also Reichmann, R.
- Siempelkamp, E., plates of wood pulp or other fibrous materials, (P.), B., 912.
- Sieniawski, J. See Parnas, J. K.
- Sieradzki, W., absorption trough for use with the Bürker universal spectroscope, A., 689.
- Sierp, F., activated carbon for removal of phenols from crude ammoniacal liquor, B., 292.
- Sierra, F., adsorption indicator system silver iodide-starch; modification of the Haen-Low method for the determination of copper, A., 922.
- and Burriel, E., determination of silver and copper in alloys without preliminary separation, B., 792.
- See also Del Campo, A.
- Sievers, A. F., metal extraction apparatus for phytochemical work, A., 654.
- Sievers, K. See Runge, H.
- Sievers, R. F. See McIntyre, A. R.
- Sieverts, A., and Hagen, H., densities of iron-nitrogen alloys, A., 1007.
- and Petzold, W., binary systems: nitrates of metals of group II and water. II.  $\text{Be}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ ,  $\text{Zn}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ , and  $\text{Cd}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ . III.  $\text{Ca}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ ,  $\text{Sr}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ , and  $\text{Ba}(\text{NO}_3)_2 \cdot \text{H}_2\text{O}$ , A., 676, 782. System strontium nitrate-nitric acid-water, A., 1013. System cadmium nitrate-nitric acid-water, A., 1245.
- See also Brüning, H., and Hagen, H.
- \*Sigmond, E. von, preparing a composition for neutralising alkaline soil, (P.), B., 727.
- Signaigo, F. K., and Cramer, P. L., preparation of mono- and di-alkylcyclohexanes, A., 1040.
- Signer, R., and Gross, H., highly-polymerised compounds. LXXXIII. Viscosity measurements with silicic acid solutions. LXXXIII. Streaming double refraction of dilute solutions of molecule colloids, A., 23, 902.
- and Weiler, J., Raman effect of methyl esters of silicic acid, A., 337.
- Sigwalt, R. See Woog, P.
- Sigworth, E. A., evaluation of activated carbons, B., 849.
- Sihvonen, F., and Tuura, J., behaviour of graphite in electrolysis, B., 236.
- Sihvonen, V., combustion of graphite in a current of gas, A., 357. Influence of X-rays on oxidation of graphite by oxygen at very low pressures, A., 359. Graphitic oxidation at low pressure by electric discharge or by Röntgen irradiation, A., 576. Primary process in the oxidation of tartrates in alkaline solution at a high anode potential, A., 914. Combustion of graphite in Osram filaments in a stream of gas, A., 1017. Oxidation of graphite by electric discharges, A., 1019. Oxidation of graphite by means of X-rays, A., 1020. Combustion of graphite, A., 1021. Oxidation of graphite, A., 1254.
- and Jussila, A., photo-activity in anodic polarisation at peroxide-forming metals, A., 915.
- and Veijola, P., electrolytic oxidisability of carbon monoxide, A., 913.
- Sikarski, J. A., and Swann Research, Inc., manufacture of clear, transparent, chlorinated diaryl resins and diphenyl resin, (P.), B., 756.
- Siksna, R., atomic fluorescence of antimony, A., 880. New resonance series in antimony vapour, A., 880.
- Sil, K. M., separation of lead from zinc and their subsequent determination, A., 799.
- Silber, W., mineral content of cartilage, A., 411.
- See also Heubner, W.
- Silberstein, K. See Stockhausen, F.
- Silberg, A. See Macovski, E., and Tanasescu, I.
- Silberman, A. K., and Lewis, H. B., pentose metabolism. III. Absorption of l-rhamnose and formation of glycogen in the rat, A., 1074.
- Silberschmidt, K., metabolic unity between stock and seion, A., 1092.
- Silberstein, F., Gottdenker, F., and Glaser, A., effect of thyroid on fat metabolism, A., 1209.
- Silberstein, J., [antiseptic properties of] thymol, A., 191.
- Silberstein, L., spectral composition of an X-ray radiation determined from its filtration curve, A., 332.
- See also Bertrand, G.
- Silfversparre, W. F., effluents of pulp mills, B., 446.
- Silhavy, J. F., and Baker Perkins Co., lubricant for bearings operating in heated atmosphere, (P.), B., 696.
- Silica Gel Corporation, stills, etc., and the operation thereof, (P.), B., 535. [Pure] carbon dioxide, (P.), B., 548.
- Silica Gel Corporation, plural or mixed gels for catalytic or adsorption processes, (P.), B., 625. Catalytic and similar contact masses containing platinum, (P.), B., 866. Adsorptive or catalytic gels, (P.), B., 1008.
- and Miller, E. B., absorber systems, (P.), B., 530.
- See also Adair, S. T., Connolly, G. C., Little, T. J., jun., Miller, E. B., and Patrick, W. A.
- Silica Products Co. See Cross, R.
- Silin, P. M., and Silina, Z. A., colorimetric determination of pectin substances, B., 806.
- Silina, N. P. See Dolgov, B. N.
- Silina, Z. A. See Silin, P. M.
- Sillib & Brückmann & Gebrüder Freundorfer G.m.b.H., colour-sensitised collodion photographic plates, (P.), B., 813.
- Silliman, H. F. See Wilson, Curtis L.
- Silten, E., and Herzogenrath, H., electric evaporators, (P.), B., 72.
- Silten Fabrik chemisch-pharmaceutischer Praeparate, E. See under Silten, E.
- Silva, C. See Villela, G. G.
- Silver, S. See Mislowitzer, E.
- Silver Springs Bleaching & Dyeing Co., Ltd., Mason, F. E., and Allen, T. G., dyeing materials containing cellulose acetate in black shades, (P.), B., 303.
- Silverman, A. See Bigelow, M. H.
- Silverman, D., and Roseveare, W. E., equation relating viscosity and surface tension, A., 17.
- Silvestrini, C. See Vecchiotti, I.
- Silvette, H. See Britton, S. W.
- Sim, S. A. See Imperial Chem. Industries.
- Simakov, V. N. See Kravkov, S. P.
- Simakova, T. L., microbiological characteristics of Crimean and Caucasian hill and steppe soils, A., 46.
- Simanov, V. V. See Pentegov, B. P.
- Simcoe, G., and Edgar Bros. Co., refined clay, (P.), B., 788.
- Šimek, B. G., apparatus for filtration at low temperatures, particularly for determination of paraffin, A., 587. Determination of asphaltic substances in brown coal producer tar, B., 99. Determination of paraffin in brown-coal tars, B., 179. Determination of softening points of tar-pitches and asphalts, B., 496. Calculating the radiation correction in calorimetric investigation of fuels, B., 577. Determination of paraffins in lignite tar, B., 578.
- and Beránek, Z., refractometric determination of naphthalene [in gas], B., 451.
- and Kassler, R., determination of the sp. gr. of coke, B., 451.
- and Ludmila, J., electrochemical extraction of humic acids, B., 946.
- Ludmila, J., and Štanclová, B., determination of moisture in coal, B., 576.
- See also Růžicka, A., and Tropsch, H.
- Šimek, J., influence of adsorbed cations on the quantity of physical clay [in soils], B., 1024.
- Simidu, K., consumption of oxygen by anæmic blood, A., 414, 851.
- Simmert, U., examination of freshness of milk by determining the  $p_{\text{H}}$ , B., 569.
- Simmon, H., rotary tubular heat-exchanging apparatus, (P.), B., 96.

- Simmonds, *F. A.*, drying of paper and cellulose paper-making materials, *B.*, 542. Capillary rise of water in fibrous sheets and possible applications, *B.*, 959.
- Billington, *P. S.*, and Baird, *P. K.*, proposed methods for the dirt count of pulp and paper, *B.*, 859.
- See also Billington, *P. S.*, and Chilson, *W. A.*
- Simmons, *D.*, ozone apparatus, (*P.*), *B.*, 716.
- Simmons, *D. N.* See Dnnlop Rubber Co.
- Simmons, *N. L.* See Crockford, *H. D.*
- Simmons, *R. H.* See Wehmhoff, *B. L.*
- Simmons, *W. H.*, spontaneous heating of soap, *B.*, 675. Brazilian bois de rose oil, *B.*, 1084.
- and Hills, *C. A.*, oil from the glands of the musk-rat, *A.*, 523. Apparatus for separation and measurement of steam distillates, *A.*, 926.
- Simms, *C. W.*, and Commercial Solvents Corp., ethers of diacetone alcohol, (*P.*), *B.*, 217.
- Simola, *P. E.*, vitamins and immunity; complement content [of blood-serum] and production of hemolysin in *A*- and *B*-avitaminosis, *A.*, 432. *A*- and *D*-Avitaminosis in the guinea-pig; combined action of the vitamins; composition of diet and scurvy in the guinea-pig, *A.*, 1088. Complement content of sera in avitaminosis-*A* and -*C*, *A.*, 1212.
- See also Klusmann, *E.*
- Simon, *Emil*, preparation of radioactive healing media, (*P.*), *B.*, 124.
- Simon, *Ernst*, [existence of isomeric 2:4-dinitrophenylhydrazones], *A.*, 398.
- See also Neuberg, *C.*
- Simon, *F.*, liquefaction of helium, *A.*, 36. Production of low temperatures, *A.*, 480. Possibility of attaining any low temperature, *A.*, 561.
- and Ahlberg, *J. E.*, demonstration apparatus for liquefaction of helium, *A.*, 561.
- See also Kúrti, *N.*
- Simon, *H.*, and Wagner, *Günther*, duplicating stencil, (*P.*), *B.*, 1006.
- Simon, *I.*, antagonism of paraldehyde to strychnine, *A.*, 744. Pharmacology of acetylsalicylic acid, *A.*, 746.
- Simon, *K.*, characterisation of humic acids and alkali-soluble lignins, *B.*, 240.
- Simon-Carves, Ltd. See Simon, Ltd., *H.*
- Simon, Ltd., *H.*, Simon-Carves, Ltd., and Ledger, *C.*, construction of coke-oven doors, (*P.*), *B.*, 138.
- Simonart, *P.* See Raistrick, *H.*
- Simonds, *P. M.*, and Hyde, *A. F.*, treatment of [zinc] ores, (*P.*), *B.*, 592.
- Simonnet, *H.*, *B*-vitamins. I and II, *A.*, 432, 645.
- Bussan, *A.*, and Asselin, *L.*, extraction of vitamin-*A* from animal tissue, *A.*, 195. Distribution of vitamin-*A* in the normal animal organism, *A.*, 323.
- See also Lesné, *E.*, Randoïn, *L.*, and Régnier, *M. T.*
- Simonov, *K. A.*, flotation of oxidised copper ores from Koktas-Djartas and Koktas-Djal, *B.*, 308.
- and Duimov, *A. M.*, dressing Khalilov nickel ore, *B.*, 391.
- See also Trushlevich, *V. I.*
- Simons, *H.*, sterilising and bleaching the whole grain, *B.*, 408.
- 10\*
- Simons, *J. H.*, and Bouknight, *J. W.*, heat of vaporisation of hydrogen fluoride, *A.*, 560.
- and Dull, *M. F.*, two reactions of gaseous methyl and ethyl, *A.*, 930.
- See also Dull, *M. F.*
- Simons, *J. K.*, Wagner, *E. C.*, and Müller, *John Hughes*, tolyl derivatives of germanium, *A.*, 1177.
- See also Wagner, *E. C.*
- Simonsen, (*Miss*) *D. G.*, oxidation of cysteine with iodine; formation of a sulphonic acid, *A.*, 814.
- Simonsen, *J. L.* See Bradfield, *A. E.*, Cahn, *R. S.*, Owen, *J.*, and Penfold, *A. R.*
- Simplex Engineering Co. See Sylvester, *J.*
- Simplicity System Co. See West, *L. B.*
- Simpson, *C. T.* See Whitmore, *F. C.*
- Simpson, *G. L.*, and Pittsburgh Research Corp., control of temperature, (*P.*), *B.*, 897.
- See also Moore, *W. E.*
- Simpson, *H. G.* See Bunte, *K.*
- Simpson, *H. S.*, mulling machine, (*P.*), *B.*, 288.
- Simpson, *J. C. E.* See Heilbron, *I. M.*
- Simpson, *K. M.*, production of ferrochrome and other similar alloys, (*P.*), *B.*, 833. Production of iron, (*P.*), *B.*, 833.
- Simpson, *M. E.* See Evans, *H. M.*
- Simpson, *N. M.* See Baker, *W.*
- Simpson, *S. G.* [with Schumb, *W. C.*], determination of zirconium in steels; selenious acid method, *B.*, 231, 550.
- Simpson, *W. W.*, and Ogden, *E.*, physiological significance of urea; elasmobranch heart, *A.*, 311.
- Sinclair, *D. A.*, accurate determinations of vapour pressures of solutions, *A.*, 587.
- Sinclair, *H. M.* See Passmore, *R.*, and Peters, *R. A.*
- Sinclair, *R. D.*, rôle of vitamin-*D* in nutrition of the pig, *A.*, 871.
- Sinclair, *S. E.* See Tucker, *W. A.*
- Sinclair, *W.*, and Gortner, *R. A.*, physicochemical studies on proteins. VII. Peptisation of gliadin by solutions of inorganic salts, *A.*, 730.
- Sinclair Refining Co., and Walsko, *J.*, refining of hydrocarbon [lubricating] oils, (*P.*), *B.*, 499.
- See also Apgar, *F. A.*, Campbell, *O. F.*, Herthel, *E. C.*, Ischie, *W. V.*, Isom, *E. W.*, Pelzer, *H. L.*, and Stafford, *J. G.*
- Singer, *S. J.* See Fuchs, *F. E.*
- Singh, *B.*, metabolism studies on dry and milking animals, *A.*, 1326.
- Singh, *B. K.*, optics in the service of chemistry, *A.*, 552. Progress of stereochemistry in India, and significance of the doctrine of symmetry, *A.*, 803.
- Singh, *D.* See Lander, *P. E.*
- Singh, *J.*, and Rao, *B. Sanjiva*, essential oil from leaves of *Thymus serpyllum*, *Linn.*, *B.*, 250.
- Singh, *S. L.*, and Rasul, *C. K.*, conservation of farmyard manure at Lyallpur, *B.*, 1027.
- Single, *O.* See Bakelite Ges.m.b.H.
- Singleton, *W.*, Hulme, *W.*, Jones, *Brynmor*, and Goodlass Wall & Lead Industries, lead and lead alloys, (*P.*), *B.*, 592.
- and Jones, *Brynmor*, effects of addition of tellurium to lead, *B.*, 351.
- Singleton-Green, *J.*, testing concrete in compression, *B.*, 508.
- Sinha, *R. P.* See Briggs, *H.*
- Sinozaki, *H.*, potentiometric titration of sodium and calcium cyanamides, *A.*, 798.
- and Okamoto, *Z.*, modified Lo Blanc soda process, *B.*, 740.
- Sioiri, *M.*, and Okuda, *A.*, distillation apparatus for the Kjeldahl method, *A.*, 330.
- Sippe, *C.*, and Bostock, *J.*, hypoglycaemia, *A.*, 971.
- Sips, *R.*, measurements of gas currents by means of capillary flow-meters, *A.*, 481.
- Sircar, *A. C.*, and Bhattacharyya, *K. C.*, fluorenone. II, *A.*, 388.
- and Gopalan, *M. D. R.*, acenaphthenone. III. Reactivity of its  $\text{CH}_2$  group, *A.*, 505.
- and Pal, *I. B.*, heterocyclic compounds. II, *A.*, 286.
- Sirian Lamp Co. See Heany, *J. A.*
- Sirkar, *S. C.*, bibliography of the Raman effect, 1930–1932, *A.*, 445. Influence of ultra-violet absorption on relative intensities of Stokes and anti-Stokes lines in the Raman spectrum, *A.*, 1103.
- Sirucek, *J.* See Čupr, *V.*
- Sisley, *J. P.*, wetting agents in the mercerising bath, *B.*, 826.
- Sisskind, *B.*, and Kasarnovski, *I.*, solubility of gases. II. Solubility of argon, *A.*, 1240.
- Sisson, *W. A.*, and Clark, *G. L.*, X-ray method for quantitative comparison of crystallite orientation in cellulose fibres, *A.*, 1134.
- Sissons, *A. T. S.*, determination of cineole in eucalyptus oils, *B.*, 92.
- Sitharaman, *M. V.* See Dey, *B. B.*
- Sitnikov, *M.*, possibility of introduction of very high potentials in discharge tubes, *A.*, 992.
- Sitte, *K.*, diffusion in liquids. V. Theory of diffusion in solutions of strong electrolytes, *A.*, 17. Influence of convection on Brownian motion, *A.*, 901, 1243. Theory of  $\beta$ -emission, *A.*, 995. Cause of sub-electronic discharges and electrophotophoresis, *A.*, 761.
- See also Beck, *G.*, and Zuber, *R.*
- Siyadjian, *J.*, relation between the speed of passage of local anaesthetics through lipin membranes and their anaesthetic value, *A.*, 633. Permeability; passage of substances through lipin membranes, *A.*, 673.
- Sivoplias, *L. I.*, leadless glazes for domestic pottery industry, *B.*, 965.
- See also Charmandarian, *M. O.*
- Sivov, *F. K.*, Korotaeva, *M. M.*, and Kotschneva, *M. P.*, preparation of camphor by dehydrogenation of borneol and isborneol using metallic catalysts, *A.*, 830.
- Sixt, *J.* See Mugdan, *M.*
- Sixtus, *K. J.*, and Tonks, *L.*, propagation of large Barkhausen discontinuities. II, *A.*, 15.
- See also Tonks, *L.*
- Sjöman, *B.* See Euler, *H. von.*
- Sjollema, *B.*, suitability of the mineral composition of young meadow grass and stall rations, especially for milch cows, *A.*, 632.
- and Dienske, *J. W.*, formation of nitrate, ammonia, and fatty acids from  $\alpha$ -amino-acids and nitrate from ammonium carbonate by oxidation with potassium permanganate, *A.*, 381.
- and Seekles, *L.*, magnesium content of blood, especially in tetany, *A.*, 181.

- Sjollema, B., and Seekles, L., neuromuscular excitability in relation to the biochemistry of minerals. I. Influence of change of the Ca : P ratio in the diet. III. Mineral composition of blood-serum and muscle press-juice or their ultrafiltrates in relation to neuromuscular excitability; influence of parathyroidectomy on the Ca/Mg ratio of blood-serum, A., 532, 1195.  
See also Seekles, L.
- Skala, L. W., and Skala Research Labs., [electrically] separating and purifying gases, (P.), B., 555.
- Skala Research Laboratories, Inc. See Skala, L. W.
- Skalla, N. See Jantsch, G.
- Skamkiewicz, H. See Weltzien, W.
- Skapski, A., spectrum of cosmic radiation, A., 108. Endosmosis through a spherical, expandable, semipermeable membrane, A., 776.
- Skaredoff, N. E. See Baker, C. J.
- Skarzynski, B., oestrogenic substance from plant material, A., 755.
- Skau, E. L., purification and physical properties of organic compounds. I. Interpretation of time-temperature curves in f.-p. determinations and as a criterion of purity. II. F.p. of thermometer calibration standards for low temperatures, A., 667, 668.
- and Newell, I. L., rapid volumetric determination of sulphur in coal and coke; comparison of a modified benzidine method with the standard methods, B., 530.
- and Saxton, B., errors inherent in usual determination of the binary f.-p. diagram, A., 345. F.p.-solubility relations of geometrical isomerides. II. Dynamic isomerism of the anisaldoximes, A., 345.
- Skaupy, F., and Hoppe, H., crystal radiation and grain-boundary radiation of non-metallic bodies [oxides], A., 206.  
See also Gen. Electric Co.
- Skelley, H. A. See Murex, Ltd.
- Skelton, T. R., and Doyle, C. A., [water-resistant] sizing material, (P.), B., 557.
- Skinner, D. G. See Brit. Colliery Owners Res. Assoc.
- Skinner, G. S., condensation of oxalic esters with benzyl cyanide, A., 712.
- Skinner, H. W. B., excitation potentials of light metals. II. Beryllium, A., 657.
- Skinner, J. J., Williams, C. B., and Mann, H. B., fertilisers for sweet potatoes, B., 243.  
See also Cummings, G. A.
- Skinner, J. T., effect of a high intake of manganese on growth of rats, A., 181.
- Skinner, K. G., and Field, N. L., action of waste-wood ash on refractories, B., 367.
- Skinner, L. B., treatment of phosphates, (P.), B., 464.
- Skinner, M. C., and Amer. Steel & Wire Co. of New Jersey, spelter furnace condenser support, (P.), B., 473.
- Skirrow, F. W. See Manchester Oxide Co., and Matheson, H. W.
- Skita, A., Keil, F., and Baesler, E., synthesis of  $\alpha$ -aminoketones, A., 716.
- Keil, F., and Haveman, H., alkylation of secondary amines with aldehydes and ketones, A., 1147.
- Keil, F., and Meiner, H., nucleus-hydrogenated, optically active ephedrine, A., 819.
- Skizkov, S. A. See Sakharov, G. L.
- Skogmark, J., precipitating [crystallising] apparatus and process, (P.), B., 289.
- Škola, V., cast refractory blocks, B., 916. Crushing strength—linear deformation and the Jourdain cohesion, B., 916. Anhydrous system: silica, alumina, titanic oxide, B., 917.
- Skolnik, M., and Insole Holding Co., products from fibrous material, (P.), B., 503.
- Skog, F. See Thimann, K. V., and Yost, D. M.
- Skopintzev, B. A., determination of small amounts of iodide in presence of much chloride and bromide, A., 477, 798.
- Skorcheletti, V. V., and Shultin, A. I., removal of arsenic from metal, B., 22. Effect of tin and copper on chemical stability of cast iron, B., 64.  
See also Ver, O. I.
- Skorko, E., absorption bands of iodine vapour at high temperatures, A., 332.
- Skouge, E., blood-sugar curve after injection of insulin and lecithin, A., 322. and Schrupf, A., effect of lecithin on action of insulin, A., 98.
- Skovholt, O., and Bailey, C. H., influence of humidity and carbon dioxide on development of moulds on bread, B., 1079.
- Škramovský, S., use of salicylic acid as an acidimetric standard, A., 686.
- Skrimshire, G. H. See Allport, N. L.
- Skuja, J., chemical fractionation of spinach secretin and a new plant secretin, A., 319.
- Skumburdis, K. See Traube, I.
- Skvortzov, S. S., influence of desiccating winds on photosynthesis, A., 196.
- Skvortzov, V. See Vosnessenski, S.
- Skvortzov, V. N., malachite-green as indicator in volumetric determination of zinc, A., 137. Spatial interpretation of state of indicators, and analytical significance of apparent dissociation constants of indicators, A., 228. Indicator reactions of nitrogen sulphide, A., 240.
- Slack, F. G., and Breazeale, W. M., magneto-optic rotation by condenser discharge, A., 10.
- Slack, S. B., ohms of resistance measure concrete curing, B., 917.
- Sladden, A. F., silica content of lungs, A., 1079.
- Sladkov, A. S., Khalilov oxidised copper ore, B., 308.
- Slagh, H. R. See Britton, E. C.
- Slagle, F. B. See Ott, Emil.
- Slanina, F. See Bernhauer, K.
- Slansky, P., drying of linseed oil, B., 274. Paint-like [drying] properties of squalene, B., 478. Resoftening of linoxyn, B., 676.
- Slastenina, E. A. See Kulikov, I. V.
- Slater, J. G., effects of pickling on properties of carbon steels, B., 919.
- Slater, J. C., electron theory of metallic conduction, A., 884. Molecular structure, A., 1232.
- Slater, V. F. See Laporte, Ltd., B.
- Slatter, E. E., and Graham, Robert, effect of trypan-blue, thionine, and pyronine on the agglutination titre of cows infected with Bang's disease, A., 525.
- Slanek, A. See Kostakov, S.
- Slavik, new map of mineral deposits and useful minerals in Czecho-Slovakia, A., 1030.
- Slawinski, A., conductivity method for determination of the cell-volume of blood, A., 733.
- Slawinski, A., determination of uncombined water in blood-corpuscles, A., 1181.
- Slawinski, K., and Zacharewicz, W., neutral products of oxidation of pinene. II., A., 70.
- Slee, F. J., production, selection, and application of lubricating oils, B., 293.
- Šlendyk, I., and Herasymenko, P., hydrogen over-voltage on mercury cathodes in presence of small amounts of platinum metals, A., 29.
- Sleumer, H. See Müller, Karl.
- Slevogt, H., arc spectra of chromium, manganese, cobalt, and nickel in the red and near infra-red, A., 547. Arc spectra of chromium, manganese, cobalt, and nickel, A., 879.
- Slick, E. E., glass furnace, (P.), B., 706.
- Slidell, K., and Amer. Face Brick Research Corp., kiln for manufacture of bloated clay products, (P.), B., 388. Production of cellular material, (P.), B., 388. Cellular building material, (P.), B., 469.
- Sliwa, V. See Landa, S.
- Slive, A., antipepsin; determination, A., 1081.
- Sliwinski, R. See Moraczewski, W. von.
- Slizynski, J. See Prawochenski, R.
- Sloan, A. W., and Goodrich Co., B. F., rubber composition and method of preserving rubber, (P.), B., 980.  
See also Semon, W. L.
- Sloan, L. W. See Gutman, A. B.
- Slobodska, Y. Y. See Shakhov, G. A.
- Sloman, H. A., alloys containing beryllium and silver, (P.), B., 1064.
- Slonek, W. See Kirsch, G.
- Sloeff, G. See Böseken, J.
- Slotboom, H. W., preparation of molybdenum catalysts for hydrogenation purposes from molybdenite, B., 104.
- Slotin, L. See Campbell, A. N.
- Slotta, K. H., and Behnisch, R., reaction of primary and secondary amino-alcohols and aminophenols with arylsulphonyl chlorides, A., 61. Alkylation of hydrocupreine, A., 406.
- and Franke, W., constitution of azo-indicators. II. Higher homologues of helianthin and methyl-red, A., 269.
- Franke, W., and Haberland, G., constitution of azo-indicators. III. Alkylation of naphthol-orange, A., 270.
- and Szyszka, G.,  $\beta$ -phenylethylamines. III. Synthesis of mescaline, A., 819.
- Slusanschi, H. See Ionescu, M. V.
- Sly, G. E. See Hubbard, R. S.
- Smakula, A., light absorption of metals, A., 1226.
- Small, J., thermal aspects of carburization, with special reference to vaporisation of ethyl alcohol, B., 1042.
- Small, J. D., and Dry Ice Corp. of America, centrifugal manufacture of solid carbon dioxide, (P.), B., 703.
- Small, L. F., and Morris, D. E., deoxymorphines, A., 961.
- Yuen, K. C., and Eilers, L. K., catalytic hydrogenation of halogenomorphides; dihydrodeoxymorphine-D, A., 1176.  
See also Lutz, R. E.
- Smallwood, A., and Fallon, J., furnaces of the muffle type, (P.), B., 255. Furnaces, etc., and conveyance of goods there-through, (P.), B., 895.
- Smallwood, H. M., utilisation of dipole moment data, A., 114.  
See also Smyser, H. F.

- Smede, L. See Westinghouse Electric & Manufg. Co.
- Smedslund, T., derivatives of selenium diethyl, A., 374.
- Smeets, C., perchlorates. II. Heats of dissociation and hydration, A., 905.
- Smejkal, O., residual nitrogen of milk, B., 248.
- Smekal, A., effect of water on plasticity of rock-salt, A., 559. Problem of crystal strength, A., 768. Dependence of transport characteristics on temperature and mechanism of the reverse voltage in solid ionic conductors, A., 1000. Crystal cohesion and crystal plasticity, A., 1005.
- Smetáčková, M. See Lukeš, R.
- Smialowski. See Broniewski, W.
- Smith, L., urea-formaldehyde condensation product, (P.), B., 756.
- Crist, R. H., and Luco Products Corp., method of plasticising urea-formaldehyde condensation products, (P.), B., 721.
- Smith & Co., F. L., burning of cement, lime, and similar materials, (P.), B., 107.
- See also Lindhard, P. T.
- Smiles, J., dark-ground illumination in ultra-violet microscopy, A., 1264.
- Smiles, S. See McClelland, J. A. C., and Warren, L. A.
- Smiley, V. D. See Booth, H. S.
- Smirnov, A. V. See Baboshin, A. L., and Ver, O. I.
- Smirnov, B. S., determination of sulphur dyes, B., 422.
- Smirnov, N. V. See Krause, K. E.
- Smirnov, V. S., determination of maize in wheat flour, B., 329.
- Smirnova, M. I. See Ivanov, N. N.
- Smisniewicz, T., and Wykowski, W., rapid determination of moisture in smokeless powder, B., 173.
- Smit, J., fermentative properties of the *Zymosarcina* group, A., 753. Conditions favouring "bulking" of activated sludge, B., 254.
- Smit, R., and Peper, J. P., comparison of methods for determining the copper number and significance of this number for judging the attack of cellulose, B., 381.
- Smith, A., far ultra-violet eigenfrequencies of the alkali halides, A., 1102. Absorption of NaCl, KCl, and KI in the far ultra-violet, A., 1227.
- Smith, A. B. See Murex, Ltd.
- Smith, A. E., and Norton, J. W., distribution ratios and association of carboxylic acids, A., 20.
- Smith, Arnold H., Sehreiner, C. L., and Rubber Service Labs. Co., [rubber] scaling compound for cans and other containers, (P.), B., 722.
- Smith, Arthur H. See Brooke, R. O., and Swanson, P. P.
- Smith, Albert K., and Dow Chem. Co., separation of caustic soda and sodium chloride, (P.), B., 546. Flake magnesium chloride, (P.), B., 547. Preparation of magnesium chloride from a basic chloride thereof, (P.), B., 669.
- Veazey, W. R., and Dow Chem. Co., dehydration of magnesium chloride, (P.), B., 625.
- Smith, Allan K., and Gortner, R. A., electrical conductivity of mixed salt solutions, A., 230.
- See also Barry, F.
- Smith, A. R. See Flinn, F. B.
- Smith, C. A., corrosion following water-purification processes, B., 686.
- Smith, C. C. See Du Pont de Nemours & Co., E. I.
- Smith, C. L., Watson, C. B., and Pure Oil Co., conversion of [hydrocarbon] oil, (P.), B., 539.
- See also Harnsberger, A. E.
- Smith, C. M. See Jones, H. A.
- Smith, C. R. See Campbell, F. L.
- Smith, C. S., and Lindlie, W. E., micrographic study of decomposition of the  $\beta$ -phase in the copper-aluminium system, A., 454.
- and Palmer, E. W., precipitation-hardening of copper steels, B., 672.
- Smith, D., and Nield, A., Cutting Tools Research Committee; heat conductivity and hardness of carbon and high-speed steels and durability of these steels when cutting brass, B., 750.
- Smith, D. F., Pieper, E. J., Vogt, C. C., and Armstrong Cork Co., fibrous articles [pulp-board], (P.), B., 621.
- See also Pieper, E. J.
- Smith, D. P., electrical conductivity of palladium with occluded oxygen, A., 9. Simultaneous conduction by electrolytes during the measurement of resistance of palladium wires containing hydrogen, A., 1014.
- Smith, D. W., segregate structures in copper-tin and silver-zinc alloys, A., 220.
- and Mehl, R. F., etch pits in iron; their use in determining orientation of iron crystals, B., 390.
- Smith, (Miss) E. B. See Rule, H. G.
- Smith, E. D., and Aluminum Co. of America, basic aluminium sulphate, (P.), B., 589.
- Smith, E. L., systems of four immiscible liquid layers, A., 345. Kinetics of soap making, B., 74.
- See also Bacharach, A. L.
- Smith, E. P., calibration of flower-colour indicators, A., 651.
- Smith, Edgar R. See Perry, J. H.
- Smith, Eric R., Hughes, D., Marrian, G. F., and Haslewood, G. A. D., new triol from urine of pregnant mares, A., 850.
- Smith, E. R. B., gelatinase and Gates-Gilman-Cowgill method of pepsin determination, A., 1203.
- Smith, E. Westley. See Gilman, H., and Kinney, C. R.
- Smith, Edward W., storage-battery separators, (P.), B., 674.
- Smith, Ernest Waller. See Hodgson, H. H.
- Smith, Ernest Woodhouse, refuse disposal, B., 206.
- Smith, Frank. See Bird, P.
- Smith, Fred. See Ault, R. G., Herbert, R. W., and Hirst, E. L.
- Smith, F. B., and Brown, P. E., nitrate-assimilating soil bacteria, B., 81. Diffusion of carbon dioxide through soils, B., 725. Oxygen absorption in soils, B., 803.
- Brown, P. E., and Neal, O. R., comparison of various methods for determining fertilisers needs of soils, B., 882.
- and Sehlots, D., nitrate assimilation by soil bacteria, B., 679.
- See also Sehlots, F. E., Smith, S. M., and Thompson, L. G., jun.
- Smith, F. E. See Imperial Chem. Industries.
- Smith, F. Frank. See Saunders, S. W.
- Smith, Floyd F., and Richardson, H. H., control of gladiolus thrips on corms in storage, B., 934.
- See also Weigel, C. A.
- Smith, F. H., and Halverson, J. O., determination of total and bound (D) gossypol in cottonseed meal, B., 1082.
- See also Halverson, J. O.
- Smith, F. L. See Egerton, A.
- Smith, F. M. See Maekay, E. M.
- Smith, F. W. See Richardson, D. H.
- Smith, G. See Raistrick, H.
- Smith, G. B. L., Miale, J. P., and Mason, C. W., monoarylguanidines. IV. Benzoselenazolyguanidine, A., 1178.
- See also Carroll, R. H.
- Smith, G. F., and Gring, J. L., separation and determination of the alkali metals using perchloric acid. V. Perchloric acid and chloroplatinic acid in determination of small amounts of potassium in the presence of large amounts of sodium, A., 1261.
- Smith, G. P. See Fox, H. M.
- Smith, G. W., and Hopwood, J. M., fluid analysis, (P.), B., 736.
- Smith, H. B., Carroll, S. J., and Eastman Kodak Co., cellulose acetate compositions containing a brominated diphenyl ether, (P.), B., 1019. Cellulosic composition containing phenyl stearate, (P.), B., 1019.
- and Eastman Kodak Co., cellulose acetate composition containing (a) guaiacol acetate, (b) salicylaldehyde, (c) ethyl acetylglucolate, (P.), B., 264. Cellulose organic derivative composition containing  $\beta$ -ethoxyethyl lactate, (P.), B., 720. Cellulose organic ester compositions of matter containing an ester of a brominated malonic acid, (P.), B., 825. Cellulosic compositions of matter containing dibenzylsuccinate and a lower alkyl ester of malonic acid, (P.), B., 825. Cellulose acetate compositions containing oximes, (P.), B., 1019. Cellulose organic ester composition containing phenylethyl benzoate, (P.), B., 1019. Cellulose organic derivative composition containing a  $\beta\beta'$ -dialkoxydiethyl adipate, (P.), B., 1019.
- See also Taylor, E. R.
- Smith, H. D. See McLennan, J. C.
- Smith, H. E., and Pfaunder Co., heat-transfer device, (P.), B., 847.
- Smith, H. G., composition of unsaturated fatty acids of animal tissues, A., 736.
- See also Freytag, F. C.
- Smith, Herschel Gaston, and Gulf Refining Co., green-bloom oil, (P.), B., 539.
- See also Gulf Refining Co.
- Smith, H. L. See Mortland, J. A.
- Smith, H. V., and Smith, Margaret C., mottled enamel in Arizona and its correlation with the concentration of fluorides in water supplies, A., 629.
- See also Smith, Margaret C.
- Smith, I. T., antifreeze solution, (P.), B., 658.
- Smith, J., plasma-phosphatase in rickets and other disorders of growth, A., 1192.
- and Maizels, M., plasma-phosphatase in rickets and scurvy, A., 181.
- Smith, J. B. See Branion, H. D.
- Smith, J. C., chlorination of sodium benzoate, A., 272. Addition of hydrogen bromide to olefines; undecenoic acid, A., 1141.
- See also Carey, (Miss) P. C.

- Smith, *J. D. M.*, electron-nebula ratio, A., 761.
- Smith, *J. H.*, motion of suspended particles in glycerol and in water, A., 223.
- Smith, *J. H. C.*, carotene. VI. Hydrogenation of  $\alpha$ - and  $\beta$ -carotene, A., 1151.
- Smith, *J. K.*, and Beryllium Development Corp., alloy [for silverware], (P.), B., 433. [Aluminum-beryllium] alloys, (P.), B., 554.
- See also Beryllium Development Corp.
- Smith, *J. L.*, and Pfizer & Co., Inc., C., alkali iodide composition, (P.), B., 506.
- Smith, *J. N.* See Westinghouse Electric & Manufg. Co.
- Smith, *J. W.* See Le Fèvre, *R. J. W.*
- Smith, *K. E.*, and Stevens, *W.*, application of underglaze colour crayons, B., 19.
- Smith, *K. O.* See Rentschler, *H. C.*
- Smith, *L.*, oxidimetric determination of small amounts of alcohol. II., A., 143. Combustion of substances containing chlorine in Berthelot's bomb. II. Determination of the correction for the nitric acid formed, A., 801.
- and Laudon, *J.*, glycerol  $\beta$ -monobromohydrin, A., 806.
- See also Nilsson, *H.*
- Smith, *L. A.* See Hartman, *W. W.*
- Smith, *L. B.*, Broeck, *E. H. ten*, and Atlantic Refining Co., filter-press, (P.), B., 528.
- Smith, *L. L.*, and Byrkit, *G. D.*, constitution of pyromellitic, mellophanic, and prehnitic acids, A., 1295.
- and Moyle, *C. L.*, Jacobsen reaction. III. Monobromo-derivatives of the three tetramethylbenzenes, A., 600.
- and Ullyot, *G. E.*, laboratory ozoniser, A., 1265.
- Smith, *L. L. W.*, and Morgan, *A. F.*, effect of light on vitamin-A activity and carotenoid content of fruits, A., 870.
- Smith, *L. P.*, quantum defect for highly excited *S* states of para- and orthohelium, A., 1.
- Smith, *L. T.*, and Hereules Powder Co., separation of crystalline fenchyl alcohol from pine oil, (P.), B., 732.
- Smith, *M.*, and Universal Oil Products Co., treatment of hydrocarbon oils, (P.), B., 820.
- Smith, *Margaret C.*, and Briggs, *I. A.*, vitamin-A content of lucerne as affected by exposure to sunshine in the curing process, A., 644. Antirachitic value of lucerne as affected by exposure to sunshine in the curing process, A., 645.
- and Lantz, *E. M.*, experimental production of mottled enamel, A., 629. Effect of feeding fluorides on composition of teeth and bones of rats, A., 1078.
- Lantz, *E. M.*, and Smith, *H. V.*, cause of mottled enamel in human teeth, A., 629.
- See also Leverton, *R. M.*, and Smith, *H. V.*
- Smith, *Marsden C.*, improved coagulation [in water purification] at the Richmond, Va., filter-plant, B., 414.
- Smith, *M. I.*, differential extraction from dried brewers' yeast of antineuritic (*B*<sub>1</sub>) and growth-promoting (*B*<sub>2</sub>) vitamins and their biological standardisation; relation of haemin to vitamin-*B*<sub>2</sub>, A., 541.
- Lillie, *R. D.*, Elvove, *E.*, and Stohlman, *E. F.*, pharmacological action of phosphorous acid esters of the phenols, A., 1199.
- See also Seidell, *A.*
- Smith, *N. R.*, and Griggs, *R. F.*, microflora of the ash of Katmai volcano with special reference to nitrogen-fixing bacteria, B., 81.
- See also Thom, *C.*
- Smith, *N. W.*, and Wade, *G.*, treatment of [newly] plastered surfaces, (P.), B., 149.
- Smith, *O.*, potato storage, B., 650.
- Smith, *O. H.* See Naugatuck Chem. Co.
- Smith, *O. L.* See Ramage, *A. S.*
- Smith, *P. A.*, and Winchester Repeating Arms Co., apparatus for electroplating [small articles], (P.), B., 716.
- Smith, *P. I.*, electrometric control in the tannery, B., 515.
- Smith, *P. J.* See Richman, *C. T.*
- Smith, *P. K.* See Nims, *L. F.*
- Smith, *P. R.*, and Barber Asphalt Co., bituminous emulsion, (P.), B., 775.
- Smith, *R. A.*, intramolecular rearrangement of phenyl ethers with aluminium chloride, A., 389. Rearrangements of phenyl ethers; action of aluminium chloride on phenyl butyl ethers, A., 1156.
- and Niederl, *J. B.*, addition of phenols to the ethylenic linking; action of phenols on alkylene halides, A., 1286.
- See also Massey, *H. S. W.*
- Smith, *R. B.*, equilibrium conditions in continuous recycle system, B., 687.
- Smith, *R. H.*, lime-sulphur injury accentuated by coccin spreader, B., 934.
- Smith, *R. J.*, trade waste problems [in the wool-scouring industry], B., 894.
- Smith, *R. K.* See Andrews, *A. I.*, and Monack, *A. J.*
- Smith, *R. L.*, and Kraybill, *H. R.*, soyabean oil: quantity and yield as affected by conditions of expression, B., 353.
- Smith, *R. Percival*, and McKendrick, *A.*, sidelights on refractories, B., 507.
- Smith, *Rodney P.*, activity coefficient of potassium chloride in aqueous solutions at 0° from e.m.f. and f.p. data, A., 1014.
- Smith, *Richard W.*, shales and brick clays of Georgia, A., 251.
- Smith, *Robert W.* See Duffendack, *O. S.*
- Smith, *S.* See Monsanto Chem. Works.
- Smith, *S. B.*, and Sturm, *W. A.*, equilibrium in the system sodium phthalate, phthalic acid, and water, A., 782.
- Smith, *S. M.*, and Smith, *F. B.*, nitrification studies on an alkali soil in Iowa, B., 679.
- Smith, *T. B.*, qualitative separation of the iron group in presence of phosphate, A., 479.
- Smith, *W.*, heat-stable precipitating substance extracted from vaccinia virus, A., 318.
- Andrews, *C. H.*, and Laidlaw, *P. P.*, virus obtained from influenza patients, A., 1071.
- Smith, *W. C.*, and Cerro de Pasco Copper Corp., refining of bismuth, (P.), B., 553. Concentration of bismuth [in a lead] alloy, (P.), B., 592.
- Smith, *Winifred E.*, and Waller, *E. K.*, characteristics of millet oil, B., 675.
- Smith, *Waller E.*, vacuum-pan control and automatic sugar boiling, B., 361. Mechanical circulation in vacuum-pan boiling, B., 485.
- Smith, *W. Harold*, Saylor, *C. P.*, and Wing, *H. J.*, preparation and crystallisation of pure ether-soluble rubber hydrocarbon: composition, m.p., and optical properties, B., 641.
- Smith, *William Henry*, and Gen. Reduction Corp., treating and recovery of gangue from metals [sponge iron], (P.), B., 110. Reduction of iron ore without melting, (P.), B., 234. Metals reduced from their oxides without melting, (P.), B., 924.
- Smith, *William Herbert*. See Parker, *Winder & Achurch, Ltd.*
- Smith, *William Hoseason*. See Imperial Chem. Industries.
- Smith, *W. S.*, Garnett, *H. J.*, and Randall, *W. F.*, [heat]-treating nickel and its alloys, (P.), B., 794.
- Garnett, *H. J.*, Randall, *W. F.*, Telegraph Construction & Maintenance Co., and Deuts. - Atlantische Telegraphenges., magnetic [iron-nickel] alloys, (P.), B., 311.
- Smith, *W. W.* See Kendall, *J.*
- Smith Engineering Works. See Nye, *R. D.*, and Rumpel, *H. H.*
- Smith-Rose, *R. L.*, electrical properties of soil for alternating currents at radio frequencies, B., 643.
- Smithburn, *K. C.*, and Sabin, *F. R.*, cellular reactions to lipin fractions from acid-fast bacilli, A., 318.
- Smithells, *C. J.* See M.-O. Valve Co.
- Smits, *A.*, Gerding, *H.*, and Vermast, *F.*, transition from ferromagnetic to paramagnetic form for manganese arsenide and phosphide, A., 11.
- and Harmsen, *E. J.*, vapour lines of three-phase systems for co-existence of two solid components with the vapour of a binary system, A., 28.
- and MacGillavry, *C. H.*, transformation of solid ammonium chloride near -30°, A., 1119.
- Smittenberg, *I. J.*, influence of temperature and pressure on the adsorption of hydrogen by nickel. I. and II., A., 346, 562. Automatic temperature control of electric furnaces, B., 25.
- See also Scheffer, *F. E. C.*
- Smock, *R. M.*, weed control in asparagus planting, B., 982.
- See also Gourley, *J. H.*
- Smolczyk, *E.*, detection of poisonous gases, B., 686.
- Smoleński, *K.*, processing of sugar beet by the Komers and Cuker method, B., 983. Characteristics and evaluation of Polish white sugar, B., 983. Alkalinity and  $p_H$  in [beet-]juice saturation, B., 1029.
- and Brodowski, *A.* [with Waisówna, *I.*], molasses colloids, B., 983.
- and Cichocki, *M.*, *d*-galacturonic acid and its methylation products, A., 53.
- and Iwanik, *H.*, velocity of calcination of chalk, B., 963.
- and Pietrzykowski, *T.*, conductometric determination of ash in white sugar, B., 1029.
- and Reicher, *W.*, peculiar precipitate in a turbo-compressor for saturation gas, B., 983.
- and Werkenthin, *M.*, purification of [beet] juice by Teatini's process, B., 983.
- and Zaleski, *J.*, causes of formation of precipitates in [sugar-] evaporation apparatus, B., 1029.
- Smoler, *I.* See Heyrovský, *A.*
- Smolik, *L.*, nature of soil colloids; dialysis, B., 241. Variations in exchange capacity and exchangeable bases in soil, B., 241.



- Smolik, *L.*, use of electroanalysis for pre-treatment of soil samples for mechanical analysis, *B.*, 242. Composition of colloidal loam in relation to that of the soil, *B.*, 278. Buffer capacity of soils and colloidal loam, *B.*, 278. Soil colloids, *B.*, 679. Colloidal loam isolated from podsol, *B.*, 679. Chemistry of colloidal clays isolated from podsol soils, *B.*, 1024. Manganese in soils, *B.*, 1024. Lyosorption of soils in organic liquids, *B.*, 1025. Determination of exchangeable bases in soils containing calcium carbonate, *B.*, 1025.
- Smolln, *A.*, metabolism of silkworms. II. Methylglyoxal as an intermediate product in carbohydrate metabolism of *Bombyx mori*, *L.*, *A.*, 631.
- Smolinski, *J.* See Broniewski, *W.*
- Smoluchowski, *R.*, magnetic quenching of tellurium fluorescence, *A.*, 759. Extinction of fluorescence of tellurium vapour by magnetic fields, *A.*, 1095.
- Smoot Engineering Corporation. See Mawha, *J. K.*
- Smorodincev, *I. A.*, and Adova, *A. N.*, acid-alkali coefficient of peat, *A.*, 253. Nature of proteases. XII. Changes in viscosity of muscle-protein and collagen solutions during peptic digestion, *A.*, 636.
- Bebeschin, *K. V.*, and Pavlova, *P. I.*, intestinal worms. I. Chemical composition of *Taenia saginata*, *A.*, 736.
- Schirokov, *N. V.*, and Zyganova, *P. V.*, autolysis of muscle. I. Influence of temperature on distribution of nitrogen in ox flesh, *A.*, 981.
- Smuts, *O. B.* See Reimers, *J. H. W. T.*
- Smyser, *H. F.*, and Smallwood, *H. M.*, reaction between atomic hydrogen and carbon tetrachloride, *A.*, 1020.
- Smyth, *C. P.*, and Hitchcock, *C. S.*, dipole rotation in crystalline solids, *A.*, 209. Dipole rotation and transitions in crystalline hydrogen halides, *A.*, 663.
- and McAlpine, *K. B.*, dipole moment of nitric oxide, *A.*, 209.
- See also Hitchcock, *C. S.*, Kamerling, *G. E.*, and McAlpine, *K. B.*
- Smyth, *H. D.*, and Chow, *T. C.*, emission spectrum of CO, *A.*, 207.
- and Mueller, *D. W.*, ionisation of sulphur dioxide by electron impact, *A.*, 209. Ionisation of water vapour by electron impact, *A.*, 209.
- See also Chow, *T. C.*
- Smythe, *C. V.*, action of hydrogen cyanide on methylglyoxal, *A.*, 377.
- and Gerischer, *W.*, fermentation of hexose monophosphate and glyceraldehyde- $\gamma$ -phosphoric acid, *A.*, 750.
- Smythe, *J. A.* See Whittick, *G. C.*
- Snader, *D. L.*, studies of Portland cement in relation to disintegration of concrete; (b) physical properties and characteristics of tri- and di-calcium silicates, tri-calcium aluminate, and dicalcium ferrite, *B.*, 467.
- Snapper, *J.* See Bendien, *W. M.*
- Snassel, *F.* See Rotini, *O. T.*
- Snavey, *B. L.*, and Turner, *L. A.*, activation of nitrogen-mercury mixtures by illumination with light from a quartz-mercury arc, *A.*, 200.
- Snell, *F. D.*, detergency of alkaline salt solutions. III. Deflocculating and emulsifying power, *B.*, 304. Fuel briquettes, (P.), *B.*, 773.
- Snell, *F. R.*, conductivity of solutions of zinc oxide in sodium hydroxide solution, *A.*, 230.
- See also Hammick, *D. L.*
- Snell, *J. M.*, and McElvain, *S. M.*, acetoacetic ester condensation. IV. Reaction product of aliphatic esters and sodium ethoxide, *A.*, 258. Preparation of keten [diethyl]acetate, *A.*, 259.
- Snell, *R. S.* See Beaumont, *A. B.*
- Snelling, *C. E.* See Weech, *A. A.*
- Snelling, *R. J.*, and Thews, *E. R.*, applications of silver solders in chemical industry, *B.*, 1062.
- Snelling, *W. O.*, refining of copper, (P.), *B.*, 473. Distillation, (P.), *B.*, 609. Balance weight, (P.), *B.*, 609.
- Boyd, *R. N.*, and Trojan Powder Co., treating [reducing the viscosity of] carbohydrate esters, (P.), *B.*, 664.
- and Gasoline Products Co., hydrocarbon products, (P.), *B.*, 352.
- Wyler, *J. A.*, and Trojan Powder Co., denaturation of spent acids, (P.), *B.*, 623.
- Snethlage, *H. C. S.*, accuracy of freezing-point determination by means of the Beckmann thermometer, *A.*, 366.
- Snider, *H. J.*, comparison of methods for determining availability of phosphorus [in soils], *B.*, 82.
- See also Badger, *C. J.*
- Snider, *R. H.*, and Bloor, *W. R.*, fatty acids of liver-lectithin, *A.*, 297.
- Snieszko, *S.* See Peterson, *W. H.*
- Snitter, *P.*, camphenilone and derivatives. I. and II., *A.*, 1300.
- Snoek, *J. L.*, measurements of dielectric losses in castor oil, *A.*, 1001.
- See also Arkel, *A. E. van.*
- Snow, *C. C.*, stability of diazo-chlorides; influence of various substituents, temperature, and concentration, *A.*, 130.
- Snow, *C. P.*, electronic states of molecules containing the CO group, *A.*, 449.
- See also Bowden, *F. P.*
- Snow, *H. R.*, and Standard Oil Co., conversion of hydrocarbon oils, (P.), *B.*, 952.
- Snow, *N. L.* See Brelford, *H. E.*
- Snyder, *C.*, flame-proofing [of fabrics and wood], (P.), *B.*, 701.
- Snyder, *C. L.* See Vinal, *G. W.*
- Snyder, *E. F.*, electrometric determination of chlorides in soils by the silver-silver chloride electrode, *B.*, 279.
- Snyder, *F. H.*, and Newkirk, *E. D.*, purification of gases [e.g., nitrogen-hydrogen mixtures for ammonia synthesis], (P.), *B.*, 227.
- Snyder, *F. T.*, hydrogenation of hydrocarbons, (P.), *B.*, 615.
- Snyder, *G. H. S.* See Bulkley, *R.*
- Snyder, *L. A.* See Howes, *R. T.*
- Snyder, *L. W.*, and Carson, *F. T.*, the M.I.T. [Massachusetts Institute of Technology] paper-folding tester, *B.*, 620.
- Snyder, *R. G.* See Theis, *E. R.*
- Snyder, *R. M.*, and Robinson, *B. B.*, flax fibre in relation to quality, *B.*, 583.
- and Wyant, *Z. N.*, biological decomposition of peat, *B.*, 438.
- Snyder, *R. S.*, and Magnuson, *H. P.*, removal of arsenical residue from apples, *B.*, 282.
- Soares, *J. da V.*, and Da Silva, *N. B. G.*, curative specifics containing sulphonated derivatives of santaleno or caryophyllene, (P.), *B.*, 765.
- Sobatzki, *R. J.* See Whitmore, *F. C.*
- Sobczuk, *B.* See Mozolowski, *W.*
- Sobel, *A. E.*, and Kramer, *B.*, colorimetric determination of small amounts of potassium, *A.*, 583.
- Sobel, *I. P.*, and Dreker, *I. J.*, determination of iron content of blood in children, *A.*, 845, 965.
- See also Abelo, *A. J.*
- Sobolev, *I. A.* See Kagan, *M. Y.*
- Sobotka, *H.*, Fehling's solution and isomerism of tartaric acids, *A.*, 698. *d*-5-Phenyl-5-ethylhydantoin [hypnotics], (P.), *B.*, 988.
- Holzman, *M. F.*, and Kahn, *J.*, optically active 5:5-disubstituted hydantoins, *A.*, 166.
- Peck, *S. M.*, and Kahn, *J.*, optically active hydantoins as hypnotics, *A.*, 420.
- See also Reiner, *Miriam.*
- Sobotka, *M.* See Lieb, *H.*
- Sobue, *H.*, hydromechanics of viscose and mechanism of coagulation of viscose in the spinning process. I. Theoretical equation of spinning velocity. II. Change of flow velocity by spinning pressure. III. Theoretical investigation of viscose spinning viscosimeter, *B.*, 619, 780.
- and Manago, *S.*, viscosity of silk solution. I. Effect of nickel and copper in the ammoniacal solution, *A.*, 1243.
- and Nagano, *M.*, hydration of fibres. I. Sorption of water. II. Desorption of water, *B.*, 858.
- and Ono, *K.*, scouring of wool fibre. I. II. Effect of the scouring temperature, *B.*, 780.
- See also Atsuki, *K.*
- Socci, *M.* See Jolles, *Z. E.*
- Società Anonima Italiana per la Produzione Calci & Cementi Di Segni, treatment or production of puzzuolanic materials, (P.), *B.*, 707. Hydraulic cements or binders, (P.), *B.*, 918.
- Soc. Italiana per la Cinematografia a Colori Naturali Ci. Co. Na., Anonima, [positive film for use in two-colour kinematography], (P.), *B.*, 93.
- Soc. Ital. Pirelli, rubber, (P.), *B.*, 318. Filtration of gases, (P.), *B.*, 817.
- and Venosta, *G.*, treatment of rubber latex and similar aqueous dispersions of rubber, (P.), *B.*, 400.
- Soc. Ital. Ricerche Industriali, (S.I.R.I.), catalysts [for synthesis of ammonia], (P.), *B.*, 866.
- Société Anonyme J. Bocuze & Co. See Fustier, *P.*
- Soc. Anon. le Carbone, petroleum and heavy-oil burners, (P.), *B.*, 53. Catalytic treatment of the charges supplied to internal-combustion engines, (P.), *B.*, 340. Depolarising [porous positive] electrodes for electric batteries, (P.), *B.*, 314. Metallio [copper] powder [for incorporation into carbon brushes, etc.], (P.), *B.*, 873.
- Soc. Anon. Commentry, Fourchambault et Decazeville, nitrogenisation of ferrous austenitic [iron] alloys, (P.), *B.*, 1063.
- Soc. Anon. des Distilleries des Deux Sèvres. See under Usines de Melle.
- Soc. Anon. Française Eternit, preparation of asbestos fibres from raw material, (P.), *B.*, 386.
- Soc. Anon. Française du Ferodo, friction materials, (P.), *B.*, 256.
- Soc. Anon. des Hauts-Fourneaux Forges & Acieries de Pompey, iron alloy resistant to corrosion, (P.), *B.*, 68.

- Soc. Anon. Manufacture Générale Métallurgique, construction of tubular heat-exchange apparatus with corrugated fins, (P.), B., 2.
- Soc. Anon. des Manufactures des Glaces et Produits Chimiques de St. Gobain, Chauny et Cirey, continuous manufacture of sheet glass, (P.), B., 388. Tempering glass, (P.), B., 627. [Apparatus for] tempering glass by jets of air directed at right angles to the surface, (P.), B., 867. Electrical resistance furnaces, (P.), B., 1016. Electric furnaces, (P.), B., 1064.
- Soc. Anon. des Mines d'Orbagnoux, disinfecting, antiparasitic, and insecticidal agents, (P.), B., 205.
- Soc. Anon. M. Naef & Co., conversion of alicyclic ketones into unsaturated aldehydes, (P.), B., 777. Perfumes [of irone type], (P.), B., 893. Production of methylated cycloheptanones and cyclo-octanones, (P.), B., 906.
- Soc. Anon. Papeteries Navarre, waterproofing paper by means of viscose, (P.), B., 744.
- Soc. Anon. Sud Métaux, treatment of bronze scrap for separating from it copper, tin, lead, and precious metals, (P.), B., 196.
- Soc. d'Applications des Pâtes de Ciment (S.A.P.A.C.I.), pastes, mortars, concrete, etc., having a cement base, (P.), B., 63. Cements and materials formed from them, (P.), B., 191.
- Soc. Continentale Parker, protection against corrosion of aluminium and its alloys and magnesium and its alloys, (P.), B., 593.
- Soc. des Établissements Barbet, simultaneous recovery and purification of benzol contained in benzolated oils, (P.), B., 9.
- Soc. d'Études Scientifiques & d'Entreprises Industrielles. See Creuze, P. and Mitteau, F.
- Soc. pour l'Exploitation des Procédés Abder-Halden, oxidation of tars and similar products, (P.), B., 951. See also Abder-Halden, C.
- Soc. pour la Fabrication de la Soie "Rhodiaseta," artificial threads, (P.), B., 781.
- Soc. Générale de Fours à Coke, Systèmes Lecocq, coke ovens, (P.), B., 851.
- Soc. Gén. Métallurgique de Hoboken. See Leemans, J.
- Soc. Industrielle et Agricole de la Somme, treatment of sugar juices, (P.), B., 406.
- Soc. Industr. d'Applications Electriques, electrostatic precipitation apparatus [for gases], (P.), B., 1016.
- Soc. Industr. de Moy, and Herbecq, A., viscose silk, (P.), B., 103.
- Soc. "Le Magnesium Industriel." See Michel, G.
- Soc. Oxythermique, and Frankl, M., shaft furnaces for reduction and melting, (P.), B., 96. Operation of blast furnaces for production of iron or iron and cement, (P.), B., 471. Thermal treatment of solid substances by means of combustion of solid fuel, (P.), B., 692. Smelting process for solid substances with high m.p., (P.), B., 895. Working fusion and reduction furnaces [for making calcium carbide or carborundum], (P.), B., 896.
- Soc. Paix & Cie., detection of resin in viscous fats, B., 314.
- Soc. des Procédés Chilowsky, and Chilowsky, C., gasifying of heavy oils through partial combustion, (P.), B., 1045.
- Soc. de Produits Chimiques des Terres Rares. See Johnson, Matthey & Co.
- Soc. de Recherches et d'Exploitations Pétrolifères, recovery of gases or vapours by solid adsorbent substances with recovery of heat units, (P.), B., 945.
- Soc. des Schistes et Pétroles de Franche-Comté, distillation of bituminous schists, (P.), B., 52.
- Soc. Spiro, methods of determining strength of wood cellulose, B., 959.
- Society of Chemical Industry in Basle, dyeing of materials made from cellulose esters or ethers, (P.), B., 104. Anthraquinone derivatives, (P.), B., 141. Vat dyes [of the anthraquinone series], (P.), B., 141. 1001. Dyes of the dibenzanthrone series containing chlorine, and their application in dyeing, (P.), B., 141. Azo-dyes [acid dyes, pigments, and ice colours], (P.), B., 141. Azo-dyes on the fibre [ice colours], (P.), B., 144. Azo-dyes containing chromium, (P.), B., 185. Dyeings [ice colours], (P.), B., 188. Chlorosulphonic acid, (P.), B., 188. Coloured lacquers and plastic masses, (P.), B., 199. Stirring vessels, (P.), B., 336. Obtaining fast tints on the fibre [ice colours], (P.), B., 344. Reserving fibres to azo-dyes developed from their components, (P.), B., 344. Azo-dyes and intermediate products, (P.), B., 298, 957. Thiourea [thio-carbamide], (P.), B., 421. Resinous condensation products from aromatic amines and formaldehyde, (P.), B., 436. Indigoid vat dyes, (P.), B., 458. Producing chemical reactions from gases and vapours with the aid of a high-tension electric arc, (P.), B., 512. Sulphurised dyes and their application, (P.), B., 541. [Azo]-dyes [for acetate silk, etc.], (P.), B., 541, 823. Sulphuric esters of aliphatic alcohols, (P.), B., 582. Sulphonation products from higher hydroxy-fatty acids, or esters or other derivatives thereof, (P.), B., 595. Cellulose derivatives, (P.), B., 664. Dyeing of textiles [with direct dyes], (P.), B., 667. Phenol esters of sulphonated phthalic acids [wetting agents], (P.), B., 777. Elimination of sulphonic acid groups from anthraquinone- $\beta$ -sulphonic acids, (P.), B., 778. Intermediate products and dyes therefrom, (P.), B., 778. Manufacture of chlorosulphonic acid and sulphur dioxide, (P.), B., 785. Dry diazo-preparations, (P.), B., 823. [o-Hydroxyazo]-dyes containing chromium, (P.), B., 823. Dyeing or printing paper or paper pulp, (P.), B., 863. Peroxide from tetrahydronaphthalene, (P.), B., 908. 1-Amino-4-methylaminoanthraquinone, (P.), B., 908. Sulphonic acids of the terpene series [wetting, cleansing, and emulsifying agents], (P.), B., 955. Intermediate products and dyes [indigoids with anthraquinonylamide groups], (P.), B., 957. Nitrogenous derivatives of the anthraquinone series, (P.), B., 958. Dyeing or printing of textile materials consisting of or containing cellulose esters and ethers, (P.), B., 961. Fast tints on wool [ice
- Society of Chemical Industry in Basle—*continued.*
- colours], (P.), B., 961, 1006. Dyes [preparations for lacquers, etc.] and their application, (P.), B., 1001. Bleaching by means of hypochlorites, (P.), B., 1007. Cold bleaching, (P.), B., 1007. [Direct azo-] dyes and intermediate products therefor, (P.), B., 1049. Dyeing and other treatment baths for textile materials made of or containing animal fibres, (P.), B., 1053. and Wettstein, W., [concentrated] hydrocyanic acid from gases containing the same, (P.), B., 785.
- Soda, T., preparation of glucose monosulphate salts and their rotatory powers, A., 487. Mechanism of the transformation of  $\alpha$ - and  $\beta$ -forms of reducing sugars, A., 492. and Egami, F., glucosulphatase. V., A., 749. and Hattori, C., glucosulphatase. III., A., 534. and Yamazaki, J., glucosulphatase. VI. Natural substrates of the enzyme, A., 1081.
- Soda Alumina Chemical Co. See Keogh, L. R.
- Soday, F. J., and Boord, C. E., syntheses in the olefine series. IV. Heptenes, A., 1032.
- Soddy, F., absorption of cosmical radiation. I., A., 1225.
- Soder, O., single-roll grinding mills, (P.), B., 688.
- Soderberg, G., anodic phenomena in cadmium-plating solutions, B., 110.
- Soderstrom, G. F., electrical resistance thermometers as applied to human calorimetry, A., 689.
- Söderbäck, E., theory of calculation of dissociation constants from the electrometric titration of acids, A., 675.
- Söderqvist, J., spectra of Na iv, Mg v, Al vi, Mg iii, and Al iv in the extreme ultraviolet, A., 107.
- Söderström, N., and Törnblom, N., oxygen consumption of scorbutic and normal guinea-pigs, A., 1072.
- Söhnchen, E. See Pivovarsky, E.
- Söllner, A. See Lustig, A.
- Söllner, K., explanation of membrane processes (Bequerel phenomenon, negative osmosis, abnormal permeability, etc.), A., 223. See also Breindl, H., and Freundlich, H.
- Sönke, H. See Meerwein, H.
- Sørensen, M., and Haugaard, G., use of the orcinol reaction for determination of the kind and amount of carbohydrate in proteins, A., 731. See also Sørensen, S. P. L.
- Sørensen, S. P. L., and Sørensen, M., solubility and tendency to dissociate in ammonium sulphate solutions of carbon monoxidehaemoglobin, A., 409. Solubility and dissociation tendency of carboxyhaemoglobin in ammonium sulphate solutions, A., 844.
- Soesman, A. L. See Böeseken, J.
- Soff, K. See Freudenberg, K.
- Soffer, L. J. See Harrop, G. A.
- Sohl, W. E., and Shriner, R. L., structure of cuscohygrine; synthesis of ethyl homohygrinate, A., 1175.
- Sohns, F. See Freudenberg, K.

- Soie Artificielle de Gand Soc. Anon., "Sarga," and Luft, M. G., treatment [desulphurisation] of artificial materials obtained from viscose, (P.), B., 1052.
- Sokolov, A., magnesium ammonium phosphate as fertiliser, B., 759.
- Sokolov, B. See Parfentiev, J. A.
- Sokolov, N., and Blagova, T., washing and cleaning preparations containing carbohydrates, B., 926.
- Sokolov, N. I., exchange capacity of soil parent materials, B., 34.
- Sokolov, N. N. See Kobosev, N. J.
- Sokolov, P. I. See Katzen, I. S.
- Sokolov, S. I., Pasuinski, A. G., and Peskov, N. P., investigating lime liquor [from leather treatment] with a glass electrode, B., 320.
- Sokolov, V., operating lime kilns with air enriched with oxygen, B., 867. Water of crystallisation in total solids of water analysis, B., 1087.
- and Gurevich, M., chemical detection of artificial transmutation of elements, A., 1225.
- Sokolova, G. V. See Spitzin, N. I.
- Sokolova, N. See Porai-Koschitz, A.
- Sokolovski, A., and Shutschkov, E. N., continuous preparation of superphosphate, B., 913.
- Solacolu, S., ternary compound  $4\text{CaO} \cdot \text{Al}_2\text{O}_3 \cdot \text{Fe}_2\text{O}_3$ , A., 36. Use of Rankin's diagram in cement burning, B., 1056.
- Solacolu, T., and Welles, E., detection of saponins in the seeds of *Gramineae*, A., 877.
- Solana, L., and Moles, E., ethyl orthosilicate, A., 487.
- Solanđ, O. M., and Ferguson, G. C., effect of strenuous exercise of short duration on the blood-sugar, A., 308.
- and Ridout, J. H., duration of recovery period following strenuous muscular exercise, A., 975.
- See also Best, C. H.
- Solangi, F. M. K. See Chowdhury, M. R.
- Solbach, A., brown-coal tar oil in industrial and central-heating plant, B., 49.
- Soldi, A., sodium sulphide in qualitative analysis; modified Fresenius-Vortmann method, A., 365.
- and Rege, A., gaseous hydrogen cyanide, A., 133.
- Söldner, F., pre-defecation experiments, B., 806.
- Soleillet, P., mean life of cadmium atom in state  $2^3P_1$ , A., 880. Calculation of extent of polarisation of resonance radiation, A., 881. Influence of magnetic field on stream of cadmium atoms; Lande factor,  $g$ , for state  $2^3P_1$ , A., 882.
- Soletschnik, N. J., preparation of cellulose acetate for insulating lacquers, B., 619. Nitration of hemi- and  $\beta$ -cellulose, B., 619.
- Soley, W. G., and Carborundum Co., saponaceous emulsion and product containing the same, (P.), B., 477.
- Solidon Products, Inc. See Lukens, H. S.
- Sollazzo, G., action of chlorides of the type  $\text{XCl}_2$  on vanillin and methyl anthranilate, A., 715.
- Sollmann, E. I., and Amer. Lecithin Corp., preparation of non-gumming gasoline, (P.), B., 695.
- Solodki, F. See Krestinski, V.
- Solodovnikov, P. P., determination of bismuth, A., 139.
- Solomon, J., diffusion of neutrons, A., 335. Interaction of neutrons and protons, A., 659. Internal conversion [of  $\gamma$ -rays], A., 995. Effect of internal conversion, A., 1224.
- Solon, K., control of final carbonatation [of beet juice], B., 1075.
- Solotarev, S. See Salkind, J. S.
- Solotareva, S. V., and Peskov, N. P., diffusion of tannin solutions in gelatin gels, A., 779.
- Solovëva, N. F., iodometric determination of  $\text{Fe}^{3+}$  in the presence of organic matter, A., 924.
- Soloviev, N. S., Voitzekhovski, V., Peskin, M., and Kostenko, A., aqueous casein pigments, B., 315.
- Solovov, A. M. See Nikolaiev, V. I.
- Soltan, A. See Crane, H. R.
- Soltan, G., free sulphur dioxide in spent sulphite liquor, B., 824.
- Soltuish, S. See Alifimov, A. G.
- Soltys, A., solanidine, A., 729.
- Soltz, L. M. See Tropp, M. Y.
- Solvay Process Co. See Norton, Francis J., Philipp, H., and Terziev, G. N.
- Somekawa, E., seborrhoea in the rat caused by feeding with whale oil, A., 1072.
- Somers, L. C., chlorinator, (P.), B., 414.
- Somers, N. C. See Du Pont de Nemours & Co., E. I.
- Somerset, H. B. See Imperial Chem. Industries.
- Somerville, A. A., and Russell, W. F., low-sulphur compounding [of rubber], B., 479.
- Somerville, I. C., and Röhm & Haas Co., long-chain amine salts; [wetting and emulsifying agents], (P.), B., 218. Fat-liquoring [of leather], (P.), B., 724. Colloidal suspension and its use [in tanning], (P.), B., 980.
- Somerville, J. L., tentative standardisation of a fractionating screen for coniferous mechanical pulps, B., 342. Estimation of shiviness of mechanical pulps, B., 742.
- Sommelet, M., synthesis of chloromethyl derivatives of phenols, A., 1044.
- Sommer, A. L. See Allison, F.
- Sommer, E. See Mayrhofer, A.
- Sommer, E. W. See Sommer, Hermann.
- Sommer, H., heat-stability of asbestos, B., 623.
- and Becker, Johannes, change in sunlight of the ultra-violet ray absorption of imitation parchment papers, B., 620.
- Sommer, Hermann, occurrence of paralytic shell-fish poison in the common sand-crab, A., 177.
- and Sommer, E. W., botulinus toxin; destruction by heat, A., 866.
- Sommer, H. H. See Templeton, H. L.
- Sommer, J., suitability of metals, alloys, etc., for varnish-kettle manufacture, B., 198.
- Sommer, L. A., long-wave part of the visible spectrum of the night sky, A., 332. Night light and Northern lights, A., 881.
- Sommerfeld, A., higher ionisation potentials of atoms according to the Thomas-Fermi model, A., 332. Packing effect, A., 994.
- Sommerfeld, G., anisotropy of the forces of crystal growth, A., 114.
- Sommerfeldt, E., discontinuity and thermodynamics of crystal growth, A., 1009.
- Sommermeier, K., production and behaviour of negatively-charged metallic particles in electrical discharges, A., 882.
- Somogyi, M. See Good, C. A., and Shaffer, P. A.
- Sonderhoff, R. See Wieland, H.
- Sondern, C. W., non-heptane constituents of Jeffrey pine oil, B., 525.
- Sone, C. See Kitisato, Z.
- Sonkin, S., action of mercury metastable atoms on a tungsten surface, A., 657.
- Sonn, A., alkylation of dihydroresorcinols, A., 155.
- and Litten, W., alkylation of pyrazolones, A., 1306. Ethyl-phenylacetacetate, A., 1306.
- Sonnenfeld, E., moisture-proof opaque or transparent paper, (P.), B., 586.
- Sonnery, S. See Lumière, A.
- Sonnino, C., melting of aluminium and its alloys in electric and in fuel-fired furnaces, B., 1013.
- Sonntag, A. See Neumann, B.
- Sontag, (Mlle.) D., direct halogenation of arylaliphatic alcohols, A., 947.
- See also Palfray, L., and Sabatay, S.
- Soos, M. See Kucera, C.
- Soper, F. A. See Roberts, R. E.
- Soper, F. G., and Williams, E., effect of the solvent on reaction velocity. III. Interaction of persulphate and iodide ions, A., 573.
- Sopp, J. W., and Selbach, H., influence of insulin on the conversion of carbohydrate into fat, A., 1335.
- Sopwith, D. G. See Gough, H. J.
- Sorensen, E. E., and Scholbe, P. F., refrigerant, (P.), B., 896.
- Sorgato, I., apparatus for the measurement of high electrolytic conductivity, A., 586.
- Sorgenfrei, C., microscopical detection of quartz in dust, B., 1009.
- Soroos, H. See Coleman, G. H.
- Sors, P., benzyl chloride, B., 457.
- Sosa, A., heteroside from *Betula alba*, A., 811.
- Šošin, A. A., movement of salts in soils, B., 1025.
- Soskin, S., Katz, L. N., Strouse, S., and Rubinfeld, S. H., elderly diabetics with cardiovascular disease; available carbohydrate and blood-sugar level, A., 302.
- Sosman, R. B., physical chemistry of the alumina-silica refractories. I. "Physical chemistry" of a system of refractory components. IV. Equilibria in the system alumina-silica, A., 229.
- Sossiedov, N. I. See Blagoveschensky, A. V.
- Sossinka, H. G., Schmidt, B., and Sauerwald, F., lattice geometrical conditions for slip planes in crystals, A., 1234.
- See also Sauerwald, F.
- Sotgiu, G. See D'Ignazio, C.
- Sothen, B. von, water-cooling of blast furnaces, B., 429.
- Soula, C. See Bouisset, L.
- Soulié, J. See Gay, L.
- Soulié, P. See Loeper, M.
- Soulier, A. See Kling, A.
- Sourdillon, A., progress in heat treatment of steels, B., 231. Quenching cracks [in steels], B., 470.
- South, R. P., and Lava Crucible Co. of Pittsburgh, lining for furnaces, (P.), B., 268.
- South Metropolitan Gas Co., Stanier, H., and Davis, J. E., mixing liquids or liquids and solids, (P.), B., 657.
- Stanier, H., Davis, J. E., and Rumford, F., [still for] distilling or concentrating liquids, (P.), B., 336.

- Southard, J. C., Milner, R. T., and Hendricks, S. B., low-temperature specific heats. III. Molecular rotation in crystalline primary *n*-amylamine hydrochloride, A., 217.
- Southborough, (Lord). See Cross, W. M.
- Southcombe, J. E., and Germ Lubricants, Ltd., fuels for internal-combustion engines, (P.), B., 853.
- and Wells, J. H., incomplete lubrication, B., 287.
- Souther, B. L., Greene, J. W., and Gulf Refining Co., purifying petroleum oils, (P.), B., 138. Cracking of oil, (P.), B., 455.
- Southern, H., calculation of open-hearth furnace regenerators, B., 847.
- Southgate, B. A., toxicity of mixtures of poisons, A., 310. Toxicity of coke-oven effluents, B., 606.
- Pentelow, F. T. K., and Bassindale, R., toxicity to trout of potassium cyanide and *p*-cresol in water containing different concentrations of dissolved oxygen, B., 894.
- Southgate, G. T., agglomerating and reducing [phosphate] ores, (P.), B., 464.
- Souvion, P. J. F., copper sulphate, (P.), B., 506.
- Souza, D. de A. See Da Rocha, J. B.
- Severeign, C. L., and Internat. Patents Development Co., crystallisation [of glucose], (P.), B., 520.
- Sowa, F. J., Hinton, H. D., and Nieuwland, J. A., organic reactions with boron fluoride. V. Rearrangement of phenyl, *o*-, *m*-, and *p*-tolyl isopropyl ethers, A., 1045.
- Sowter, P. F. C. See Brit. Celanese.
- Sox, H. C. See Kurtz, A. C.
- Spacu, G., and Armeanu, V., detection and separation of selenocyanates in presence of halides, A., 136.
- and Spacu, P., rapid macro- and micro-determination of silver, A., 42. Rapid macro- and micro-determination of bismuth, A., 924. Existence of ammoniates of double salts, A., 1128.
- and Sucu, G., application of the authors' rapid method for determination of mercury to the separation and determination of mercury in presence of elements of the hydrogen sulphide and ammonium sulphide groups, A., 478.
- Spacu, P. See Spacu, G.
- Spaeth, C. P. See Du Pont de Nemours & Co., E. I.
- Späth, E., [sapotalin], A., 830.
- [with Passl, J.], constitution of pelotino and anhalonidine, A., 77.
- and Christiani, A. von, vegetable fish poisons. VII. Constitution of ostruthol (from *Imperatoria ostruthum*), A., 1056.
- and Galinovskiy, F., constitution of cytsine, A., 1175.
- and Holzen, H., vegetable fish poisons. V. Constitution of imperatorin (from *Imperatoria ostruthum*), A., 1056.
- and Kahovec, L., vegetable fish poisons. VI. Constitution of isomperatorin (from *Imperatoria ostruthum*), A., 1056.
- and Klager, K., vegetable fish poisons. II. Constitution of peucedanine and orecoselone (from *Peucedanum officinale*). IV. Constitution of oxypeucedanine from *Imperatoria ostruthum*, A., 614, 833.
- Kuffner, F., and Ensfellner, L., constitution of  $\psi$ -conhydrino, A., 516.
- Späth, E., and Pesta, O., vegetable fish poisons. III. Constitution of osthohol (from *Imperatoria ostruthum*), A., 614.
- and Suominen, E. E., *N*-methyl-laurotetanine, a new alkaloid from *Litsea citrata*, A., 1175.
- and Tharrer, K., constitution of laurotetanine, A., 618. Constitution of boldine, A., 840.
- Wessely, F., and Nadler, E., constitution of podophyllotoxin and picropodophyllin, A., 73, 278.
- Spaght, M. E., Hein, F., and Pauling, H., dipole moments of stannic chloride and derivatives, A., 339.
- Spahr, R. J., Vogt, R. R., and Nieuwland, J. A., organomercuri-acetylides and their use in the identification of organomercuri-halides, A., 815. Mono- and di-substituted organo-mercury derivatives of acetylene, A., 1177.
- See also Vaughn, T. H.
- Spahr, W. See Kutscher, F.
- Spalding, W. J., and Nat. Aniline & Chem. Co., treatment [oxidation] of indoxyl, (P.), B., 219.
- Spanagel, E. W. See Allen, C. F. H.
- Spangler, M. G., strength and durability tests of mortar-mix mortar, B., 549.
- Spangler, R. D., cybotactic condition of ethyl ether in the region of the critical point, A., 1236.
- Spanner, H. J., Doering, U., and Electrons, Inc., obtaining metallic coatings [on electrodes of radio valves], (P.), B., 636.
- Sparklets, Ltd., and Heyl, G. E., preventing or extinguishing fires in confined or semi-confined spaces, (P.), B., 898.
- Sparks, C. H. See Davy, C. H.
- Sparks, M. See Almy, G. M.
- Spurling, E. M. See Miller, W. L.
- Sparnberg, G. See Helferich, B.
- Sparrow, J. C., effect of substances on fat production by *B. megatherium*, *B. mycoides*, and *B. albolactis*, A., 638.
- Speakman, J. B., structure of wool fibre; its relation to dyeing and finishing processes of the wool textile trade, B., 618. Structure of wool fibre and its relation to finishing, B., 858.
- and Chamberlain, N. H., emulsification of mixed liquids of high mol. wt. [in wool-scouring processes], B., 298.
- Stott, E., and Chang, H., theory of milling. II., B., 741.
- and Hirst, M. C., constitution of the keratin molecule, A., 227.
- Speakman, J. C. See Glasstone, S.
- Spear, E. B., and Thermoatomic Carbon Co., carbon black, (P.), B., 739.
- Speas, V. E. See Rooker, W. A.
- Speas Manufacturing Co. See Rooker, W. A.
- Specchia, O., influence of light on paramagnetic susceptibility, A., 10. Absorption spectra of cobaltous chloride in alcoholic solutions, A., 336. Raman effect and depolarisation factor, A., 661.
- Specht, H. See Holzhydrolyse A.-G.
- Specht, P., photo-electric effect with the carbundum detector, A., 999.
- Specht, Z., electrical conductivity of graphite powder, A., 114.
- Speckhardt, G., testing of coke by the dropping, drum, and pressure-rubbing methods, B., 98.
- Spedding, F. H., Zeeman effect in solids, A., 444.
- and Bear, R. S., absorption spectra of the samarium ion in solids. III. Absorption of  $\text{Sm}(\text{BrO}_3)_3 \cdot 9\text{H}_2\text{O}$  and a partial energy level diagram for the  $\text{Sm}^{+++}$  ion as it exists in crystalline  $\text{Sm}(\text{BrO}_3)_3 \cdot 9\text{H}_2\text{O}$ , A., 997.
- and Nutting, G. C., effect of crystal symmetry and chemical composition on the energy levels of solids, A., 336. Orientation of co-ordination water molecules about rare-earth ions in solution, A., 445.
- See also Lewis, G. N.
- Speer, N. E. See Kernot, J. C.
- Speer, W. K., and McCleary Bros., Inc., detergent, (P.), B., 276.
- Speers, P. C., Yajnik, N. A., Goyle, D. N., and Shafr, M., saponification of emulsified oils, B., 836.
- See also Dhingra, D. R.
- Spehr, G. See Jürgens, R.
- Speirs, J. See Ford, J. S.
- Speitel, R., [dyeing with a] brown condensation and oxidation product of *m*-aminophenol, B., 461.
- Spelling, R., recovery of constituents of photographic film material, (P.), B., 492.
- Spellmeyer, E. F., composition for preventing boiler priming or frothing, (P.), B., 896.
- Spelshouse, W. E. See Beard, L. C.
- Spence, A. W., effect of administration of cyanides on the thyroid gland of chickens, A., 977.
- Spence, H., Llewellyn, I. P., and Spence & Sons, Ltd., preparation of catalytic materials and of carriers therefor, (P.), B., 964.
- Llewellyn, W. B., and Spence & Sons, Ltd., preparation of titanium compounds, (P.), B., 626.
- Spence, H. L., and Spence Co., H. L., bronze for welding, (P.), B., 394.
- Spence, H. S., pitchblende and silver discoveries at Great Bear Lake, Northwest Territories, A., 140.
- Spence, J., preparation of vinyl iodide, A., 486.
- Spence, Le R. U. See Westinghouse Electric & Manufg. Co.
- Spence, R., polymerisation of gaseous formaldehyde, A., 1123.
- and Wild, W., thermal reaction between chlorine and formaldehyde, A., 1036.
- Spence Co., H. L. See Spence, H. L.
- Spence & Sons, Ltd., P. See Spence, H.
- Spencer, A. C., and Standard Oil Development Co., control of heat in the distillation of oil, (P.), B., 456.
- Spencer, D. A., reproducing screen plates, B., 173.
- Spencer, G. C. See Adams, E. M.
- Spencer, G. L., and Cuban-Amer. Sugar Co., extraction of sugar from cane molasses containing glucose, (P.), B., 887.
- Spencer, H. M., activity coefficients of potassium chloride; application of the extended Debye-Hückel theory to interpretation off.-p. measurements, A., 126.
- and Mote, J. H., free energies of formation of various forms of lead monoxide, A., 127.
- and Selden, R. F., free energies and heats of formation of tetrahydrate and anhydrous forms of cadmium bromide and their transition temperatures, A., 126.

- Spencer, *L. J.*, origin of tektites, *A.*, 252, 802, 1268.  
 [with Hey, *M. H.*], meteoric iron from Kyancutta, South Australia, *A.*, 589. Meteoric iron and silica-glass from the meteoric craters of Henbury (Central Australia) and Wabar (Arabia), *A.*, 1136.
- Spencer, *R.*, dryer-felts for paper machines, (*P.*), *B.*, 15.
- Spengler, *O.*, troubles with [beet-juice] pre-defecation, *B.*, 600.
- and Böttger, *S.*, ascertaining the optimum point of final saturation [of beet-sugar juices], *B.*, 405. Best method of liming raw [beet] juice in the cold, *B.*, 519. Darkening of [beet] juice due to presence of small amounts of first saturation scums at the second saturation, owing to defective filtration, *B.*, 806. Influence of condition of beets on effects of preliming [of sugar juice], *B.*, 886.
- and Dorfmueller, *G.*, action of alkali carbonates on lime-water and solutions of calcium salts, and the so-called Loiseau's lime. I, *A.*, 1020.
- and Kessler, *P.*, influence of potash-factory effluents on [beet-]sugar-factory juices, *B.*, 246.
- and Landt, *E.*, colorimetry in sugar manufacture. I. Stammer colorimetry. II. Leitz absolute colorimeter, *B.*, 887.
- Landt, *E.*, and Ost, *J.*, decomposition of alkaline sugar solutions at high temperatures. III, *B.*, 441.
- and Paar, *W.*, influence of basic lead acetate on the marc volume in [determination of sugar in beets by hot aqueous] digestion, *B.*, 806.
- and Tödt, *F.*, conditions for most accurate and simple determination of invert sugar in presence of sucrose, *B.*, 1076.
- Tödt, *F.*, and Böttger, *S.*, different effects of optimum preliming carried out in different ways, *B.*, 840. Summary of most important results on best procedure in [beet-juice] purification, especially in preliming, *B.*, 1029.
- Tödt, *F.*, and Wigand, *J.*, control of sugar boiling by means of electrical conductivity. I.—III, *B.*, 38, 406, 1075. Conductivity as measure of the viscosity of sugar-factory products, *B.*, 1030.
- Spénlé, *E.* See Esser, *H.*
- Sper, *G.*, plant experiences with the performance of the refractory lining of the grey cast-iron electric furnace, *B.*, 228.
- Sperling, *K.* See Goehn, *A.*
- Speroni, *G.*, apparatus for facilitating the reading of m.p., *A.*, 1264.
- Sperr, *F. W.*, jun., and Hoppers Co., fluid contact apparatus, (*P.*), *B.*, 177. Dehydration of gas, (*P.*), *B.*, 214, 339. Gas purification, (*P.*), *B.*, 214, 660. Aération and [fuel] gas purification process, (*P.*), *B.*, 377.
- and Hoppers Co. of Delaware, gas and liquid contact apparatus, (*P.*), *B.*, 609.
- See also Koppers Co. of Delaware.
- Sperry, *D. R.*, and Sperry & Co., *D. R.*, filter press, (*P.*), *B.*, 769.
- Sperry, *R.* See Denton, *M. C.*
- Sperry, *W. A.*, laboratory screw clamp, *A.*, 690. Simple laboratory tachometer, *A.*, 927.
- Sperry, *W. M.*, influence of electrical charge in micro-gravimetric analysis, *A.*, 139.
- Sperry & Co., *D. R.* See Sperry, *D. R.*
- Spetl, *M.*, improvement of coke structure by petrographical treatment of the coal, *B.*, 947.
- Spiegel-Adolf, *M.*, physico-chemical studies of lipins in their relations to salts, drugs, and proteins, *A.*, 226.
- Spiegelberg, *E.*, completely automatic distilling and concentrating apparatus especially for preparing distilled water, *A.*, 801.
- See also Bleyer, *B.*
- Spiegler, *L.* See Du Pont de Nemours & Co., *E. I.*
- Spiegler, *R.*, and Stern, effect of parathyroid hormone on the condition of [serum-] calcium, *A.*, 641.
- Spielhagen, *W.*, effect of gradient of potential of alternating current on the glowing potential of inert gases and air in discharge tubes, *A.*, 331.
- Spielman, *M. A.*, sitosterol esters in wheat-flour oil, *B.*, 594.
- See also Lauer, *W. M.*, and MacDougall, *F. H.*
- Spielmeyer, *G.*, formation of furfuraldehyde during sulphite digestion [of wood], *B.*, 142.
- Spiers, *C. H.* See Jablonski, *L.*
- Spiers, *F. W.*, diffusion of mercury on rolled tin foils, *A.*, 561.
- See also Brindley, *G. W.*
- Spies, *J. R.*, sealing capillary tubes in the Rast modification of the Barger method of mol. wt. determination, *A.*, 248.
- See also Drake, *N. L.*
- Spies, *T. D.*, and Grant, *Jean*, so-called "pellagra-producing" diet, *A.*, 1191.
- Spildo, *L.*, growth of pigs. I. Calcium and phosphorus metabolism in young growing pigs, *A.*, 1075. Results of silage making by the A.I.V. method, *B.*, 844.
- Spilker, *A.*, and Schade, *W.*, additive products of styrene and aromatic hydrocarbons, *A.*, 56.
- Spillman, *W. J.*, use of the exponential yield curve in fertiliser experiments, *B.*, 644.
- Spiltoir, *J.* See Haec, *A.*
- Spindel, *M.*, determination of size of loose particles, *B.*, 895.
- Spindler, *H.*, and Coustal, *R.*, prediction of photo-electric power, *A.*, 1229.
- See also Coustal, *R.*
- Spinks, *A. W.* See Brooks, *H. B.*
- Spinks, *J. W. T.*, bromine-sensitised photo-decomposition of chlorine dioxide, *A.*, 237.
- Spiridonova, *S.*, essential oils from grass, *B.*, 172.
- Spiridovich, *N. I.*, structural stabilisation of magnetic tungsten steel, *B.*, 709.
- Spitzer, *B.*, water-gas producer for complete gasification of fuels, (*P.*), *B.*, 258.
- Spitzer, *E. E.*, application of graphite as anode material to high-vacuum transmitting valves, *A.*, 1265.
- Spitzer, *L.*, determination of formaldehyde with potassium bromate, *A.*, 491.
- Spitzer, *W.*, relation between pancreas and eclampsia; significance of diastase in normal and pathological pregnancy, birth, and confinement, *A.*, 1072.
- Spitzin, *N. I.*, Sokolova, *G. V.*, Popova, *T. M.*, and Zorin, *I. I.*, preparation of acid ammonium fluoride, *B.*, 747.
- Spivey, *E.* See Dawson, *H. M.*
- Splichal, *J.*, changes of surface and structure of gels and minerals at high temperatures, *A.*, 1117.
- Šána, *J.*, and Jirkovský, *R.*, physico-chemical studies of the mine waters of Příbram, *A.*, 1028.
- Spoehr, *H. A.*, and Strain, *H. H.*, alleged production of polysaccharides in alkaline solutions of hexoses, *A.*, 1038.
- Spoelstra, *H. J.*, bagasse briquetting, *B.*, 486.
- and Nicola, *P. C.*, unknown losses in two systems of imbibition [in milling cane], *B.*, 885.
- Spoelstra, *J. F.*, deposits on the steam side of sugar-juice evaporator tubes, *B.*, 361.
- Spöttel, *W.*, influence of nutrition on the mechanical properties of [sheep's] hairs, *A.*, 975.
- Spohn, *E.*, lime limit of Portland cement, *B.*, 1010.
- Spohn, *R. C.* See Yeasties Products, Inc.
- Sponer, *H.* See Cordes, *H.*
- Spooner, *E. C. R.* See McAnlay, *A. L.*
- Sprague, *W. T.* See Kermack, *W. O.*
- Sprague, *A. D.* See Nielsen, *H. H.*
- Sprague, *H. B.*, root development of perennial grasses and its relation to soil conditions, *B.*, 1027.
- Sprague, Warner & Co. See Potter, *P. D.*
- Sprankle, *C. N.*, and Jordan, *C. B.*, assay of podophyllum, *B.*, 524.
- Sprantsman, *A.*, preparation of macroscopic thallium crystals by electrolysis, *A.*, 576.
- Spreckels, *C. A.*, sugar refining, (*P.*), *B.*, 808.
- Sprenger, *A.*, refractory substances, (*P.*), *B.*, 20.
- Sprenger, *K.* See Nowack A.-G., *A.*
- Sprenger, *L.* See Kohlschütter, *H. W.*
- Spreter, *T. von*, effect of irradiated ergosterol on the parathyroidectomised rat, *A.*, 434.
- Spring, *F. S.*, resinols. I.  $\beta$ -Amyrin of *Manila elemi*, *A.*, 1299.
- See also Heilbron, *I. M.*
- Spring, *O.* See Merley, *S. R.*
- Springer, *L.*, selenium glasses, *B.*, 507.
- Springer, *U.*, organic matter and its condition in soil, *B.*, 201.
- Sprinson, *D. B.* See Baumann, *E. J.*
- Sprockhoff, *M.*, and Hönsch, subsidence of starch milk, *A.*, 566.
- Spronll, *W. T.*, diffraction of low-speed electrons by a tungsten single crystal, *A.*, 549. New type of apparatus for experiments in secondary electron diffraction, *A.*, 586.
- Spruijt, *F. J.*, and Blanton, *F. S.*, vapour heat treatment for control of bulb pests and its effect on growth of narcissus bulbs, *B.*, 934.
- Sprunger, *V. J.*, and Amer. Anode, Inc., rubber goods [from latex], (*P.*), *B.*, 515.
- See also Anode Rubber Co.
- Spryskov, *A. A.* See Grischin, *I. J.*
- Spychalski, *R.*, potentiometric determination of small quantities of silver, *A.*, 798.
- Squibb & Sons, *E. R.* See Christiansen, *W. G.*, and Nitardy, *F. W.*
- Squires, *A. C.* See Bigger, *A. F.*
- Srebov, *B.* See Balarev, *D.*
- Sreenivasaya, *M.*, and Iyengar, *N. K.*, separation of enzymes from their mixtures, *A.*, 1201.
- See also Rao, *Y. V. S.*

- Srikantan, B. S., adsorption of sodium linoleate in preference to that of sodium oleate on the surface of nickel and copper, A., 899.  
and Rao, A. R., decomposition of hydrogen peroxide by potassium ferro- and ferri-cyanides, A., 1123.
- Srinivasan, A., determination of nitrogen in soils. I, B., 401.
- Suknewitsch, J. See under Suknevitsch, J.
- Stacey, M. See Ault, R. G.
- Stacey, R. S., effect of ingested creatine on the blood-sugar and -phosphate, A., 857.
- Stach, E., origin of the vitrain in hard coals, A., 803.
- Stach, H., formation and chemical structure of bright brown coals. III., B., 610. Metamorphosis of coal and problem of artificial coalification, B., 898.
- Stackelberg, M. von, and Neumann, F., crystal structure of borides of composition  $MB_2$ , A., 116.  
and Paulus, R., crystal structure of nitrides and phosphides of bivalent metals, A., 1003.  
See also Klemm, W.
- Stadie, W. C., and Wright, S. L., pyrometer for temperatures up to  $1000^\circ$ , A., 480.
- Stadler, A., apparatus for filtration at high temperatures, A., 587.  
See also Raudnitz, H.
- Stadler, J. See Steinhäuser, K.
- Stadler, R. See Grassmann, W.
- Stadlinger, H., significance of carboxyl group of fatty acids for the industry of textile aids [wetting, etc. agents], B., 28. Significance of fatty-acid carboxyl group in the textile-aid industry, B., 314, 555. Chemical fireproofing agents, B., 667.
- Stadnikov, G. L., balkashite, A., 928.
- Stadtfeld, J. A., and Plant Rubber & Asbestos Works, gas flue or vent, (P.), B., 609.
- Stäblein, F., and Jaeger, Hans, heat effects on tempering quenched carbon steels, B., 509.
- Staedtler, J. S., [graphite] writing and drawing leads, (P.), B., 78.
- Staeger, S. A. See Westinghouse Electric & Manuf. Co.
- Staeger, R. See Schwab, G. M.
- Staehe, H. C. See Brit. Thomson-Houston Co.
- Stähli, M. See Waser, E.
- Stafford, J. G., and Sinclair Refining Co., refining of lubricating oil, (P.), B., 259.
- Stafford, O. F., acetamide as a solvent, A., 1240.
- Statseth, H. J., preparation of hæmolytic and precipitating sera, A., 82.
- Staggemeier, O. M. See Schou, S. A.
- Stabel, E., new coupling effect between  $\gamma$ -rays and sheath electrons? A., 205.  
and Johnner, W.,  $\gamma$ -radiation of radium, A., 334.  
and Ketelaar, H., nuclear diffusion of  $\gamma$ -rays, A., 762. Interaction between  $\gamma$ -rays and atomic nuclei, A., 1224.
- Stahl, A. L., and Shive, J. W., nitrogen absorption from culture solutions. I. Oats. II. Buckwheat, B., 564, 727.
- Stahl, H., detection of changes in potash and phosphate contents of soils by the method of von Wrangell, B., 1026.
- Stahl, J. See Aron, M., and Caulaert, C. van.
- Stahl, W., and Haring, F., feeding trials with potato silage made in various silos, B., 364.  
Haring, F., and Kühler, E., cod meal, white fish meal, and feeding cascino-gen as protein feed for young pigs, B., 444.
- Stahl-Chemie Ges.m.b.H. See Renkwitz, E.
- Stahly, E. E. See Evers, W. R., and Whitmore, F. C.
- Stahly, G. L. See Werkman, C. H.
- Stahmer, H. See Kleinfeller, H.
- Staiger, and Glaubitz, M., dextrin-fermenting yeasts, B., 936.
- Stainier, C., and Leclercq, L., use of calcium carbonate in determination of iodides, A., 41. Determination of iodine in tincture of iodine and in Lugol's solution, B., 123. Determination of iodides according to the Dutch Pharmacopœia, B., 1008.
- Stajic, V. See Pushin, N. A.
- Stakelbeck, H., viscosity of refrigerants in liquid and vapour state in relation to pressure and temperature, A., 1238.
- Staker, E. V. See Wilson, B. D.
- Stålhane, O., Werner, D. R. E., and Giertz-Hedström, S., treatment of materials containing arsenious acid [for manufacture of cement], (P.), B., 707.  
See also Werner, D. R. E.
- Stallmann, O. See Du Pont de Nemours & Co., E. I.
- Stam, M. J., preparation of pulveriform rubber, (P.), B., 358. Conversion of milky liquids, solutions, dispersions, and emulsions into powder form by spray-drying, (P.), B., 817.
- Stamatoff, G. S. See Bogert, M. T.
- Stamford Rubber Supply Co. See Gillespie, K. A.
- Stamm, G., determination of nitrite in pickling salt, B., 104.
- Stamm, H., and Gossrau, K., action of selenium dioxide and selenium oxychloride on methone, A., 1314.  
and Richter, M., supposed "selenium dioxide-oxalic acid," A., 796.
- Stamm, J., chlorine-combining power of drugs, B., 524.
- Stanbery, L. J., heat-resisting chromium-nickel-iron alloys for furnace construction. I. Load-carrying ability. II. Selection of alloys for specific conditions of use, B., 1060.
- Stanbury, G. R., measurement of levelness of worsted yarns, B., 55.
- Stanbury, W. S., rapid determination of gold excretion of patients under sanocrysin treatment, A., 304.
- Stanclová, B. See Šimek, B. G.
- Stanco, Inc. See Pearson, H. P.
- Standard Alcohol Co. See Brooks, B. T.
- Standard Brands, Inc., preparation of activated lipin, (P.), B., 732.  
See also Frey, C. N., Gore, H. C., and Schultz, A.
- Standard-I.G. Co. See Davis, G. H. B., Gohr, E. J., Jennings, J. M., Peck, E. B., and Russell, R. P.
- Standard Oil Co., heat treatment of hydrocarbon oils, (P.), B., 694.  
and Atwell, H. V., separation of wax from oil, (P.), B., 456.  
See also Adams, C. E., Adams, E. W., Arveson, M. H., Atwell, H. V., Bahlke, W. H., Brewster, O. C., Cooke, T. S., Diggs, S. H., Graves, G. D., Harrison, J. S., Kinney, A. M., Lindsay, J. D., Lowery, Hugh, Mc-
- Standard Oil Co.—continued.  
Claughry, R. S., McGill, W. J., Miller, Clarke C., Monroe, D. A., Moore, J. E., Ovitz, F. K., Payne, E. H., Read, C. D., Roberts, E. N., Robinson, J., Rogers, T. H., Schaeffer, E. J., Shepard, J. H., Snow, H. R., Stockdale, T. E., Sullivan, F. W., jun., Thiele, E. W., Voorhees, V., Wilson, Robert E., Wood, W. E., and Youtz, M. A.
- Standard Oil Co. of California. See Chappell, M. L., Craise, F. L., Danner, P. S., Doell, T. W., Graves, F. G., Halloran, R. A., Hampton, W. B., Holm, M. M., Lantz, V., Mino, E., Osmer, J. H., Shiffer, W. H., and Strout, A. L.
- Standard Oil Co. of Indiana. See Arveson, M. H., Kinnison, W. E., Plummer, W. B., and Whitman, W. G.
- Standard Oil Development Co., artificial resins and resinous products [from petroleum tar], (P.), B., 929.  
and Buc, H. E., valuable [alkyl] derivatives [germicides] from phenols, (P.), B., 956.  
and Gutzeit, C. L., inhibition of gum formation in low-boiling hydrocarbon oils and products obtained thereby, (P.), B., 181.  
and Potts, G., means for shielding tubular apparatus in furnaces from radiant heat, (P.), B., 368.
- Rosen, R., and Lieber, E., conversion of organic sulphur compounds [in gaseous hydrocarbons], (P.), B., 537.
- Sankowsky, N. A., and Fulton, S. C., insecticides, (P.), B., 760.
- Schonberg, J. R., and Robinson, W. E., removal of undesired low-boiling components from naphtha by fractional distillation, (P.), B., 258.
- Wiezevich, P. J., and Frolich, P. K., production of ketens by pyrolysis, (P.), B., 905.
- Winning, C., Sargent, L. E., and Dudley, J. F., inhibition of gum formation in low-boiling hydrocarbon oils, (P.), B., 138.
- See also Archibald, F. M., Bayne, C. D., Becker, A. B., Bolles, S. R., Buc, H. E., Coleman, S. P., Duff, R. L., Ewing, C. R., Frolich, P. K., Goodwin, R. T., Grant, D. H., Haslam, R. T., Hopkins, M. B., Howard, F. A., Kuhl, P. E., Lebo, R. B., Lewis, W. K., Loomis, N. E., Luster, E. W., McCabe, W. L., Mann, M. D., jun., Nichols, H. J., jun., Pope, J. C., Schonberg, J. R., Spencer, A. C., Stratford, R. K., Synnor, H., Wiezevich, P. J., and Wilson, Amyuit L.
- Standard Process Corporation. See Ballard, E. S.
- Standard Rolling Mills, Inc. See Konigsberg, J. H.
- Standard Telephones & Cables, Ltd., Clarke, G. W., and Leman, H. S., electrolytic condensers, (P.), B., 752.
- Scott, T. R., and Field, M. C., manufacture or treatment of paper for use in electrical insulation, (P.), B., 782.
- Standen, A. See Imperial Chem. Industries.
- Standenath, F. See Mulli, K.
- Standfast, A. F. B. See Wooldridge, W. R.
- Stanek, V., and Pavlas, P., [sugar] juice coloration during boiling; influence of alkalinity, air, and iron on sulphured and unsulphured juice, B., 87. Apparatus for rapid determination of the sugar content of carbonatation scums, B., 120.



- Staněk, V., and Šandera, K., rapid refractometric method for approximate determination of sugar in carbonation scums, B., 325.
- Stanfield, K. E., and Schierz, E. R., esters of  $\alpha$ -hexabromostearic acid, A., 49.
- Stanford, L. H. See Corbett, S. M.
- Stang, V., fish meal as a feeding-stuff. VII. Is the feeding of fish meal of high salt content injurious to fattening pigs, and are pigs especially sensitive to salt? B., 444.
- Stange, O., number of members in ring B of cholesterol, A., 1047. Conversion of cholesterol into 6-ketoallocholanolic acid, A., 1162.
- Stanier, H., viscosity of coal tars and pitches, B., 374.  
See also South Metropolitan Gas Co.
- Stanley, H. M. See Brit. Industrial Solvents, Ltd., and Distillers Co., Ltd.
- Stanley, W. M., McMahon, E., and Adams, R., stereochemistry of diphenyls. XXVII. Comparison of the racemisation of 6:6'-difluoro- and 6:6'-dimethoxy-diphenic acids, A., 392.
- Stanley, W. S., required capacity of separate digestion tanks for an activated-sludge plant, B., 526.
- Stannard, C. R. See Fredrickson, W. R.
- Stansby, M. E., and Lemon, J. M., electro-metric detection of relative freshness of haddock, B., 570.
- Stansfield, A., Canadian electric furnace industry, B., 474.
- Stansfield, E., and Gilbert, K. C., moisture determination for coal classification, B., 993.
- Stansfield, R. See Murray, J. T.
- Stantial, H., effect of inositol, of bios II, and of both together in the culture medium, on the reproduction of twelve kinds of yeast, A., 427.  
See also King, E. J.
- Stanworth, J. See Stanworth, S.
- Stanworth, S., speedy methods of determining moisture, B., 1039.  
Clegg, J. H., and Stanworth, J., metal-melting furnaces, (P.), B., 833.  
and Stanworth, J., ascertaining moisture content of a material or substance, (P.), B., 256.
- Stapp, F. P. See Pomeroy, R. D.
- Stare, F. J., and Elvehjem, C. A., cobalt in animal nutrition, A., 312.
- Stare, S., conductometric control of [sugar] boiling, B., 1075.
- Starek, R., dyeing two colours on half-wool materials, B., 461.
- Stark, C., working of artificial horn, B., 1071.
- Stark, D. D., and Assoc. Oil Co., treatment of hydrocarbon oils [to separate acid sludge], (P.), B., 259.
- Stark, M. E., standards for predicting basal metabolism. I. Prediction for girls from 17 to 21, A., 527.
- Starke, H. R. See Woods, H.
- Starkenstein, E., periodic variation of bone-marrow activity and blood formation, A., 1196.  
and Hahnel, G., formation of lipinsoluble salts in chloride-sulphate solutions, A., 1199.  
and Harvalik, Z., ferri-globulin compound of intermediate iron metabolism, A., 1196.  
and Johne, F., oxidation and reduction of iron in organs, A., 1196.  
and Neiger, R., autoxidation of ferrous salts and stability of their solutions, A., 1196.
- Starkenstein, E., and Stejskal, W., catalytic influence of iron salts on decomposition of nicotine during smoking, A., 1197.  
and Wasserstrom, T., active constituents of *Urtica dioica* and *U. urens*, A., 1216.
- Starkey, T. A., effect of temperatures used in pasteurising milk on bacteria contained therein, B., 363.
- Starkey, T. V. See Johnson, M. C.
- Starling, J., tan liquor heating device, B., 980.
- Starnes, F. C., cause of yellowness in sepia toning, B., 93.
- Starovjerova, E. N. See Kazanski, B. A.
- Starovoitov, K. T. See Metelsky, V. V.
- Starr, C. E., thermal decomposition of natural gas, (P.), B., 854.
- Stary, Z., and Winternitz, R., chemistry of the aqueous humour, A., 176.
- Stasiak, A., and Kerényi, B., assay of pharmaceutical pepsin preparations, B., 891.
- Stasiw, O., colour centres of the latent image in the electric field, A., 577.
- Stather, F., comminution of leather analysis, B., 161. Diffusion of chestnut and quebracho tannins into animal hide, B., 240. Diffusion of different vegetable tannins into animal hide, B., 678.  
and Lauffmann, R., fat-liquoring process. II. Behaviour of sulphonated castor oils in chrome leather fat-liquoring. III. Fat-liquoring chrome-[tanned] leather with mixtures of sulphonated castor oil and unsulphonated oils. IV. Behaviour of soap and soap-fat mixtures in fat-liquoring chrome-[tanned] leather. V. Behaviour of egg yolk and egg yolk-fat mixtures in chrome-leather fat-liquoring. VI. Behaviour of different fat-liquors in fat-liquoring chrome-tanned hide powder and chrome leather, B., 160, 437, 723.
- Stathi-Photiadou, A. K. See Photiadis, P. D.
- Stathopoulou, T. G., butter from sheep's and goats' milk, B., 1032.
- Staub, H., investigation of the dielectric properties of sodium potassium tartrate by means of X-rays, A., 447.
- Staub, J., harmonic concentration differences at a membrane, A., 223.
- Staub, L. See Ruff, O.
- Stand, C. J., and Eastman Kodak Co., cellulose composition containing diethyl phthalate and *o*-tolyl *p*-toluenesulphonate, (P.), B., 720.
- Fuess, J. T., and Eastman Kodak Co., lubricant containing cellulose acetate, (P.), B., 543. Hydrolysis of cellulose esters using neutral salts as inhibitors, (P.), B., 911. Cellulose nitro-acetate, (P.), B., 1004.
- Gray, H. le B., and Eastman Kodak Co., chloroform-insoluble [fibrous] cellulose acetate, (P.), B., 585.
- McLean, E. K., and Eastman Kodak Co., preparation of lower mixed organic esters of cellulose from partly hydrolysed cellulose acetate, (P.), B., 699.
- Waring, C. E., and Eastman Kodak Co., production of cellulose nitro-acylate, (P.), B., 698.
- and Webber, C. S., photographic sensitive materials, (P.), B., 572.
- Webber, C. S., and Eastman Kodak Co., cellulose acetate solvent and composition, (P.), B., 720.
- Stand, C. J., Webber, C. S., and Eastman Kodak Co., cellulose derivative products, (P.), B., 720. Manufacture of ether lactates of cellulose and the product thereof, (P.), B., 720. Cellulose acetate composition [for production of flexible films], (P.), B., 929. Preparation of double [mixed]  $\alpha$ -ketonic acid [acyl] cellulose esters, (P.), B., 1004.  
See also Gray, H. le B., Kodak, Ltd., Murray, T. F., jun., and Webber, C. S.
- Staudinger, H., highly-polymerised compounds. LXXXII. Dependence of the viscosity of cellulose solutions on temperature, A., 55. Viscosity investigations for examination of the constitution of natural products of high molecular weight and of rubber and cellulose, A., 226.  
and Bauer, R. C., highly-polymerised compounds. LXXXII. Viscosities of solutions of derivatives of higher paraffins with branched chains, A., 673.  
and Freudenberg, H., highly-polymerised compounds. LXXXV. Biosan acetate of Hess and Friese. LXXXVII. Viscosity measurements on Zechmeister's oligosaccharide derivative and constitution of cellulose, A., 149, 493.  
and Kern, W., highly-polymerised compounds. LXXXVI. Viscosity of solutions of thread molecules with branched chains, A., 370.  
and Lohmann, H., highly polymerised compounds. LXXXI. Eucolloidal polyethylene oxide, A., 932.  
and Trommsdorff, E., highly polymerised compounds. LXXX. Polyacrylic acids. IV. Mol. wt. of polyacrylic acids and esters, A., 697.
- Stanffer, J. P. See Hollander, A.
- Staveley, L. A. K. See Newling, W. B. S.
- Stearie, E. W. R., homogeneous unimolecular decomposition of mixtures of gaseous aliphatic ethers, A., 356.  
and Reeve, H. A., decomposition of dimethyl ether on the surface of platinum, A., 131. Energy transfer between complex gas molecules and solid surfaces, A., 356.  
See also Tapp, J. S.
- Stead, J. W. J., disinfectant and insecticide, (P.), B., 206.
- Stear, J. R., naphthalene as a fumigant against the peach tree borer (*Aegeria exitiosa*, Say.) and sod insects, B., 1074.
- Stearn, A. E., rationalisation, from viewpoint of physical chemistry, of behaviour of bacteria towards dyes with special reference to staining, A., 640.  
See also Gold, A., and Stearn, E. W.
- Stearn, E. W., and Stearn, A. E., effect of reaction of the medium on characteristics of bacteria. I. General. Results obtained with *B. coli comm.*, *S. enteritidis*, and *Ps. pyocyanea*. II. Behaviour of *B. subtilis*. III. *B. cereus*, A., 1083.
- Stearns, E. I. See Klooster, H. S. van.
- Stearns, G., soya-bean flour in infant feeding, A., 1327.  
and Warweg, E., blood-phosphorus. I. Partition of phosphorus in whole blood and serum; serum-calcium and plasma-phosphatase from birth to maturity, A., 1316.
- Stearns, J. C. See Bennett, R. D.

- Stearns, L. A., biology and control of *Mettriona binittata*, Say., B., 484.
- Stebbins Engineering & Manufacturing Co. See Richter, C. F.
- Stechhöfer, S. See Mönch, G.
- Stedehouder, P. L. See Backer, H. J.
- Stedfast Rubber Co., Inc., leather substitutes, etc., (P.), B., 622.
- See also Clifford, J. L.
- Stedman, E., Stedman, (Mrs.) E., and Easson, L. H., choline-esterase, an enzyme present in blood-serum of the horse, A., 315.
- Stedman, (Mrs.) E., and White, A. C., comparison of the choline-esterase activities of the blood-sera from various species, A., 1081.
- See also Easson, L. H.
- Stedman, (Mrs.) E. See Stedman, E.
- Steeger, O. See Dietzel, R.
- Steel, E. W., factors affecting the *o*-tolidine test [for water], B., 126.
- Steel, J. J., and Moore Dry Kiln Co., kiln for drying lumber and other substances, (P.), B., 815.
- Steele, F. A., determination of zinc sulphide pigments in paper, B., 959.
- Steele, J. H., and Michigan Steel Corp., treatment of steel sheets, (P.), B., 591.
- Steele, S., infra-red radiation from an Otto cycle engine. I. Apparatus and technique, B., 419. "Oxidising agent" and peroxide in an Otto cycle engine cylinder, B., 533. Theory of fuel knock, B., 613.
- Steele, W. R. See Brit. Thomson-Houston Co.
- Steenbock, H., and Wisconsin Alumni Research Foundation, antirachitic [cereal] product, (P.), B., 570. Production of anti-rachitic product essence, (P.), B., 570.
- See also Baumann, C. A., Donk, E. C. van, Hauck, H. M., and Templin, V. M.
- Steenhoudt, J. See Morelle, J.
- Steer, E. H. See Duff, J. C.
- Steer, W., *Bytturus tomentosus*, Fabr. III. Further experiments on its control on raspberries, loganberries, and blackberries, B., 404.
- Steere, F. W., and Barrett Co., coke, (P.), B., 693.
- Stefan, Z., thermal conductivity of metals in relation to their use in the chemical industry, especially the manufacture of acids and explosives, B., 970.
- Stefanova, M. See Popov, M.
- Stef, J., resynthesis of adrenaline, A., 192. Properties of adrenal lipin, A., 192.
- Steger, A., and Loon, J. van, fat from the seeds of *Pisammia sow*, A., 989.
- Steggerda, F. R. See Amberson, W. R.
- Stegmayer, C. See Ryan, J. F.
- Stehly, P. S. See Poe, C. F.
- Stehli, H. J., sintering-machine pallet, (P.), B., 833.
- Steblik, V., inheritance of sugar content and weight in hybrids from sugar beets and fodder beets, B., 1073.
- Stehman, C. J. See Whitmore, F. C.
- Stehn, J. R., perturbation theory of molecules formed from 2p atoms, A., 1226.
- See also Mack, J. E.
- Steiger, B. See Wölbling, H.
- Steiger, O. See Sängler, R.
- Steiger, R. E., sensitivity of aromatic nitro-compounds to light. I. *peri*-Derivatives of 1-nitronaphthalene, A., 816.
- Steigerwaldt, F., and Reiser, B., conductivity of normal and pathological serum, A., 1317.
- Steigle, J., dilatometric anomalies of mild and very soft carbon steels, B., 348.
- Steil, W. N., method for staining bacteria and antherozoids, A., 1218.
- Steimle, A., combustion of aromatic hydrocarbons, B., 419.
- Stein, Gerhard. See Alder, K.
- Stein, Gertrud. See Winterstein, A.
- Stein, M., and Keller, J. R., gelatin capsules, (P.), B., 981.
- Stein, N. O., photochemistry of hydrogen sulphide, A., 472. Spectrum of hydrogen sulphide. I and II, A., 1101.
- Stein, W. See Moser, Hanns.
- Stein & Co., Ltd., J. G., Hyslop, J. F., and Mackenzie, R., separation of iron and aluminium oxides, (P.), B., 866.
- Stein, Hall & Co., Inc., sizing treatment of artificial silk yarns and threads and sizing composition for use therein, (P.), B., 225.
- Steinbach, H. B., electrical potential difference across living frog skin, A., 978.
- Steinbauer, G. P., growth of tree seedlings in relation to light intensity and concentration of nutrient solution, B., 202.
- Steinberg, F. See Antropoff, A. von.
- Steinberg, S. S., and Kusakin, P. S., ferro-alloys, B., 308.
- Steinbrück, R. See Holtz, F.
- Steiner, A. See West, Edward S.
- Steiner, D., grading analysis and properties of cements, B., 468. Chemical structure and strength of cements, B., 468.
- and Bartos, B., [formation of] free lime in cement by decomposition at a high temperature, B., 269.
- Steiner, K., and Burgsmüller, W., measurements with liquid helium. XXI. Breaking strength of rock-salt at 4.2° abs., A., 769.
- See also Meissner, W.
- Steiner, L., viscosimeter recording o.g.s. units, B., 767.
- Steiner, M., seasonal osmotic variations in evergreen woody plants, A., 1215.
- Steiner, W. See Finkelnburg, W.
- Steinhäuser, K., and Stadler, J., determination of phosphorus in aluminium, B., 194.
- Steinhard, H. See Schwartz, W.
- Steinhoff, G., determination of nitrogen in starch products, B., 441. Volumetric methods of determining sugar in the analysis of starch products, B., 520. Analysis of starch syrup, B., 520. Determination of crude fibre [cellulose] in potatoes and potato products, B., 523.
- See also Schulz, A. P.
- Steinhorst, W. See Auerbach, R.
- Steinitz, E., standardisation of bitumen emulsions; emulsions with solid emulsifying agents, B., 611.
- Steinitz, H., intermediary fructose metabolism in experimental liver damage, A., 415. Nitrogenous constituents of gastric juice. I. Ammonia, A., 849.
- Steinke, E. G., [atomic disintegration by cosmic rays], A., 1100.
- Gastell, A., and Nie, H., disintegration of various substances by ultra-radiation, A., 995.
- and Tielsch, H., diminution of cosmic-ray intensity by transmission through various materials, A., 996.
- Steinkopf, W., action of arsines with halogenoarsines, A., 702.
- and Höpner, T., thiophen series. XXIV. Nitrothiophens and thiophensulphonyl chlorides, A., 512.
- and Jacob, H., thiophen series. XXV. Thioaldehydes and thioketones of thiophen, A., 512.
- Steinmann, A., Java cacao, B., 603.
- Steinmann, W., centrifuge for extraction of fat from material by means of a solvent, (P.), B., 398.
- Steinmaurer, H., clinical determination of urinary sugar, A., 179.
- Steinmaurer, E. See Hess, V. F.
- Steinmetz, H., blue coloration of rock-salt accompanying spark perforation of the crystals, A., 132.
- See also Treibs, A.
- Steinmetz, W., after-effects of nutrition of seedlings on growth of rutabagas, B., 1073.
- Steinour, H. H., and Riverside Cement Co., Portland cement composition, (P.), B., 107. Portland cement, (P.), B., 270.
- See also Woods, H.
- Stejskal, W. See Starkenstein, E.
- Stek, H. J. See De Jong, W. F.
- Stekol, J. S., and Cerecedo, L. R., physiology of pyrimidines. VII. Metabolism of isobarbituric acid in man, A., 744.
- Stellezky, T. See Danilov, V.
- Stelling, O., potentiometric investigation of oxidimetric determination of hydrazine, A., 363.
- [with Norling, F.], K-X-ray absorption spectra of chlorine compounds in aqueous solution. I., A., 214.
- See also Nylén, P.
- Stelzner, H., and Dräger, O. H., regeneration of breathing air in closed rooms, (P.), B., 494.
- Stempel, B., formaldehyde titration of hydrazino sulphate, A., 363. Acidimetric determination of alkali nitrites, A., 363.
- Stenbeck, S., X-ray analysis of alloys of mercury with silver, gold, and tin, A., 1006.
- Stendal, N., characterisation of higher fatty acids as their monocarbamides, A., 806.
- Stene, J. See Schmidt-Nielsen, S.
- Stenz, E., water vapour absorption in the infra-red part of the solar spectrum according to spectrographic measurements made at the Mediterranean coast during 1931—1932, A., 661.
- See also Gorczyński, W.
- Stenzel, W., and Weerts, J., accurate determination of lattice constants of non-cubic substances, A., 213. Temper-hardening in quenched copper-aluminium alloys, B., 1014.
- Stenzl, H. See Fichter, F.
- Stoopoe, A., I. Reactivity of Rumanian trass in trass-cement mortars. II. Strength of trass-cement mortars. III. Effect of fineness of grinding on the strength of trass-cement mortars. IV. Effect of heating trass on its reactivity and technical properties. V. Effect of small quantities of sodium carbonate on binding properties and strength of trass-cement mortars, B., 788.
- Stepanov, A. D. See Kirchhof, G. A.
- Stepanov, A. V., mechanism of plastic deformation, A., 559.
- and Kuzin, A., preparation of soluble starch by enzyme action, A., 261.

- Stepanov, B. I. See Nikolaiev, V. I.
- Stepanov, G. R., oils from seeds of *Abutilon avicennae*, G., A., 1343.
- Stepanova, A., and Tzareva, T., determination of mobilities of ions in gases, A., 994.
- Stepanović, S. See Pushin, N. A.
- Stepanyantz, G. A., concentration of nephelite tailings from the flotation of apatite-nephelite rocks of Khibin origin, B., 913.
- Stephan, M. See Linhard, M.
- Stephan, R., and Schreder, K., non-alcoholic beverages or beverages containing a low proportion of alcohol, (P.), B., 39.
- Stephansen, E. See Anker, C.
- Stephen, W. E. See Imperial Chem. Industries.
- Stephens, C. G., Tasmanian soils in relation to tree growth in plantations of *Pinus radiata* (*insignis*) and other exotics, B., 403.
- Stephens, H. N., autoxidation. III. Initial act in autoxidation, A., 361, 680.
- Stephens, R. W. B., temperature variation of thermal conductivity of pyrex glass, B., 61. Measurement of thermal conductivity of poor and medium heat-conducting materials, B., 527.
- See also Mann, W. B.
- Stephenson, A. See Schönberg, A.
- Stephenson, J. D., electrical discharge in gases at normal temperatures and pressures, A., 201, 332.
- Stephenson, M., and Stickland, L. H., hydrogenase and hydrogenlyase. II. Bacterial formation of methane by reduction of one-carbon compounds by molecular hydrogen. III. Formation of formic hydrogenlyase by *B. coli*, A., 1333.
- Stephenson, Reginald J., fluorescence yield from the  $L_{III}$  level of uranium, A., 548.
- Stephenson, Richard J. See Curd, F. H.
- Stephenson, S. T., fine structure in *K* X-ray absorption spectrum of bromine, A., 1097.
- Stephenson, W. T. See Strosacker, C. J.
- Stepp, W. See Kühnau, J.
- Steps, H., total reflexion of X-rays at liquids, A., 553.
- See also Lüppo-Cramer.
- Šteřba-Böhm, J., and Dorabialska, A., unknown property of compounds of certain elements, A., 212.
- Sterges, A. J. See Fraps, G. S.
- Sterling, A. G. See Osborn, R. A.
- Sterling Metals, Ltd., and Player, E., light-metal [magnesium-silicon-aluminum] alloy, (P.), B., 196.
- Sterling Products Co. See Fehr, C. M.
- Sterlov, P. V. See Sadov, F. I.
- Stern, See Spiegler, R.
- Stern, A., and Klebs, G., application of calorimetry to pyrroles and pyrrole dyes. II. Calorimetric determinations with simple and polynuclear pyrrole derivatives, A., 166. Calorimetric determination of simple and polynuclear derivatives of pyrrole, A., 955. Calorimetric determinations with polynuclear pyrrole derivatives. I. Experimental data for porphyrins, chlorins, phaeophorbides, and purpurins, A., 1173.
- Stern, C. A. See Nadson, G. A.
- Stern, H. J., and Puffett, W., testing [rubber] antioxidants, B., 79.
- Stern, K., a thermodynamic law of life, A., 435.
- See also Willheim, R.
- Stern, K. G., catalase. IV. Optical behaviour. V. Catalase activity of hæmin complexes. VI. Size of particle and mol. wt. VII. Synthetic hæmin-catalases, A., 92, 533, 862, 1080. Diffusion of hydrogen peroxide in various solvents, A., 470. Relationship between liver lyochrome and catalase, A., 523. Mechanism of the action of pyocyanine on respiration, A., 733.
- and Greville, G. D., urochrome and part played by lyochromes in cellular respiration, A., 1324.
- Stern, O. See Estermann, I., and Frisch, R.
- Sternberger, H. R. See Bachmann, W. E.
- Sterne, T. E., vapour-pressure constant of methane, A., 118.
- Stettbacher, A., modern large-scale manufacture of lead azide, B., 492.
- Stettiner Chamotte-Fabrik Akt.-Ges., ovens for heat treatment of fuel, (P.), B., 498.
- Stetzenko, I., and Buman, M., synthetic acids (from oxidised naphtha) in the soap industry, B., 876.
- Steuart, D. W., determination of pectin in dried apple pomace, B., 763. Alcoholic standard for cider, B., 1077.
- Steuart, K. See Kalunite Co.
- Steudel, G. E. See Strain, H. A.
- Steudel, H., behaviour of the piperidine ring in metabolism, A., 184. Structure of simple nucleic acids. III. Yeast- and muscle-adenylic acid, A., 612. Determination of lipase, A., 981.
- Staudemann, W., manufacture [and separation] of sodium nitrate and ammonium chloride, (P.), B., 865.
- Steutel, H. E. See Buchner, E. H.
- Stevens, A. N., standardisation of ergot—a modification of Smith's quantitative colorimetric assay, B., 365.
- Stevens, E. E. See Code, G. A.
- Stevens, G. H., vulcanisation of rubber, (P.), B., 319, 481, 558.
- Stevens, H. P., and Parry, E. J., deodorisation of vulcanised rubber, B., 722.
- Stevens, J. L., [flotation] concentration of [copper] ores, (P.), B., 234.
- and Raeonite Chem. Co., [collector for use in] concentration of ore, minerals, etc. [by flotation], (P.), B., 69. Filtering apparatus, (P.), B., 689.
- Stevens, Jerry W., Kenety, W. H., and Chemi-pulp Process, Inc., [sulphite] pulp, (P.), B., 544. Accumulator system [for pulp digestion], (P.), B., 699.
- Stevens, Jesse W. See California Fruit Growers' Exchange.
- Stevens, P. G., influence of branched chains on optical activity; configuration of methyl-tert.-butylcarbinol, A., 1271.
- See also Gustus, E. L.
- Stevens, R. E., pH values caused by dissolution of silicate minerals, A., 141.
- Stevens, T. S. See McMeeking, W., and Thomson, T.
- Stevens, W. See Smith, K. E.
- Stevens, W. H., printers' rollers, B., 1018.
- Stevenson, A. F., and Borden Co., cheese, (P.), B., 604.
- Stevenson, E. P., Buron, H. A., and Richardson Co., forming [bituminous] pulps, (P.), B., 460. [Bituminous] felted fibrous composition, (P.), B., 621.
- and Little Industrial Corp., A. D., [hardwood] pulp, (P.), B., 861.
- Stevenson, R. A., chemical sewage purification at Palo Alto (Calif.), B., 413.
- Stevenson, S. G. See Bacharach, A. L.
- Stevenson, W. W., chemical analysis of modern alloy steels, B., 108.
- Steves, R. B. See Feldmeier, H.
- Steward, C. O. M., determination of water in wool by distillation, B., 341.
- Steward, F. C., absorption and accumulation of solutes by living plant cells. IV. Surface effects with storage tissue: quantitative interpretation with respect to respiration and salt absorption. V. Effects of time, oxygen and salt concentration on the absorption and respiration of storage tissue, A., 436, 874.
- Wright, R., and Berry, W. E., absorption and accumulation of solutes by living plant cells. III. Respiration of cut discs of potato tuber in air and immersed in water, surface: volume effects and salt accumulation, A., 197.
- Stewardson, E. A., dissociation of nitrous oxide in the glow discharge, A., 358.
- Stewart, Alexander (Blackley). See Imperial Chem. Industries.
- Stewart, Alexander (Bristol). See McBain, J. W.
- Stewart, A. B., genesis and development of two profiles of a drift soil in the north-east of Scotland, A., 254.
- Stewart, A. D., Boyd, T. C., and De, D. C., analysis and calorific values of Indian foodstuffs, B., 810.
- See also Sheperd, E. S.
- Stewart, D. See Okay, R.
- Stewart, D. R., and Jacobs, M. H., permeability of the *Arbacia* egg to ethylene glycol at different temperatures, A., 634.
- Stewart, E. A., marble effects in ceramics, (P.), B., 706.
- Stewart, E. E., treatment of hydrocarbons, (P.), B., 953.
- Stewart, G. W., evidence for the cybotactic group view of the interior of a liquid, A., 891. Alterations in the nature of a fluid from a gaseous to liquid-crystalline conditions as shown by X-rays, A., 1108. Liquefaction, A., 1236.
- Stewart, H. V., Dominick-Lauter medium compared with standard lactose broth for *B. coli* tests [of water supplies], B., 686.
- Stewart, J. D., and Menne, F. R., relationship of iodine to the basal metabolic rate and to the changes in the thyroid gland in pregnant rabbits, A., 972.
- Stewart, J. F. See Boldyrev, E. B.
- Stewart, J. M. See Patterson, T. S.
- Stewart, J. R., anti-skinning agents for varnishes, B., 77. Lithographic bubble viscosimeter, B., 1068.
- See also Gardner, H. A., and Sward, G. G.
- Stewart, J. W., froth flotation with bituminous coal, B., 848.
- Stewart, Laura C., Sackett, W. G., Robertson, D. W., and Kezer, A., comparison of the soil-plaque method with the Neubauer and Hoffer maize-stalk methods for determining mineral soil deficiencies, B., 359.
- Stewart, Leroy C., and Dow Chem. Co., magnesia cement compositions, (P.), B., 149, 468.
- See also Hunter, R. M.
- Stewart, R., Mitscherlich, Wiessmann, and Neubauer methods of determining nutrient content of soils, B., 81.
- Stewart, R. F., and Roberts, E. J., sedimentation of fine particles in liquids, B., 1039.

- Stewart, S. G., inherent sensitivity of the skin to nickel and cobalt, A., 532.
- Stewart, T. D., and Bradley, W. E., rate of reaction of disubstituted aminomethylsulphonic acids with iodine, A., 31. Mechanism of hydrolysis of dialkylaminomethyl ethers, A., 48.
- and Donnally, L. H., aldehyde hydrogen sulphites. II. Effect of varying temperature on equilibrium between benzaldehyde and hydrogen sulphite ion. III. Effect of changing  $p_H$  on specific reaction rate of addition of sodium hydrogen sulphite to benzaldehyde. IV. Discussion of equilibrium, rates, and temperature coefficients as affected by  $p_H$ , A., 32.
- Stewart, V. A. See S.O.S. Processing Co.
- Stewart & Co., Ltd., D., Animal Food Products, Ltd., and Talbot-Crosbie, J. B., rotary drying machines, (P.), B., 2.
- Steyn, D. G., effects of sulphur on Merino sheep, A., 530.
- Stiasny, E., chemistry of chrome tanning, B., 838.
- and Königfeld, G., chrome tanning. XIV. Determination of degree of oxidation in basic chromium chloride and sulphate solutions. XV. Effect of concentration, basicity, temperature, and salt additions on the degree of oxidation, B., 159.
- and Parker, J. G., report of the Pan-European Commission on quantitative tannin analysis, B., 931.
- and Prakke, F., action of thiosulphate on dilute chrome alum solutions, A., 919. Chrome tanning. XVI. Behaviour of sodium thiosulphate as neutralising agent, B., 931.
- and Tachei, F., chrome tanning. XVI. Action of acids on different chromium hydroxides, A., 796.
- and Ziegler, M., precipitation figure of chrome-[tanning] liquors and effect of neutral salts thereon, B., 678.
- See also Prakke, F.
- Stich, C., turbidity of morphine solutions, B., 332.
- Sticht, G. A., determination of small amounts of strychnine in presence of larger amounts of quinine and cinchonidine, B., 412.
- Stickels, A. E. See Dunning, F.
- Stickland, L. H. See Stephenson, M.
- Stickney, F. S., and Yust, H. R., elimination of natural mortality as a factor in determining the effectiveness of hydrocyanic acid gas on the Californian red scale, B., 646.
- Stiebel, F. See Lunde, G.
- Stiebeling, H. K., and Alleman, I. L., relative extractability of vitamins-B [ $B_1$ ] and -G [ $B_2$ ] by plain and acidified alcohol, A., 646.
- Stiegler, H. W., and Cheney Bros., weighting of [silk] textile material, (P.), B., 345.
- Stieglitz, J. See Rising, M. M.
- Stiehler, R. D., Chen, T. T., and Clark, W. M., oxidation-reduction. XVIII. Simple safranines, A., 464.
- and Clark, W. M., oxidation-reduction. XIX. *apo*Safranines, A., 1248.
- Stienstra, F. See Backer, H. J.
- Stier, T. J. B., rate of oxygen utilisation by yeast as related to temperature, A., 750.
- and Crozier, W. J., thermostat for lower temperatures, A., 689.
- Stierstadt, O., change in resistance of bismuth crystals in magnetic fields, A., 342. Crystal structure and electrical properties. II. Crystal structure and conductivity of Bi single crystals in transverse magnetic fields. III. Lattice structure and conductivity of longitudinally magnetised bismuth single crystals, A., 1109, 1236.
- See also Donat, E.
- Stierwaldt, K., application of indigosol dyes, B., 745.
- Stiles, H. R. See Commercial Solvents Corp.
- Stiles, W., and Leach, W., plant respiration. II. Variations in respiratory quotient during germination of seeds with different food reserves, A., 1091.
- and Stirk, M. L. L., toxic action. IV. Relative toxicities of isomeric alcohols of the aliphatic series, A., 106.
- Still, C., open-air spray-cooled apparatus, (P.), B., 3. Apparatus for cooling and separating out mixtures [of oil and water] of distillates, (P.), B., 9. Separation of light oils from wash oils by distillation, (P.), B., 9. Process and apparatus for compressing coal, (P.), B., 138. Charging and compressing loosely charged coal within oven chambers, (P.), B., 340. Chamber ovens for production of coke and gas, (P.), B., 901.
- Still, E. U., metabolism of the pancreas, A., 527.
- See also Hansche, R.
- Still & Sons, Ltd., W. M., and Adamson, A. G., [non-inflammable] films for photographic purposes, (P.), B., 1036.
- Stille, E. T., wood-filler composition, (P.), B., 789.
- Stille, U., formation of negative ions in mercury vapour, A., 882.
- Stillier, E. T. See Levene, P. A.
- Stillman, R. C. See Martin, W. S.
- Stillwell, C. W., and Feinberg, H. I., structure of electrodeposited alloys. II. Effect of current density and temperature of deposition on the structure of silver-cadmium deposits, A., 677.
- and Robinson, W. K., sodium-lead alloys; structure of the compound known as  $Na_2Pb$ , A., 218.
- Stilwell, G. R. See Electrical Research Products.
- Stimmel, B. A., McBean, K. D., Cruickshank, G., and Consolidated Mining & Smelting Co. of Canada, roasting of minerals containing the sulphides of zinc, iron, lead, and copper, for recovery of the metal and sulphur dioxide gas therefrom, (P.), B., 751.
- Stimson, A. M., and Hedley, O. F., vitamin-A deficiency in dogs, A., 1212.
- Stimson, H. F. See Osborne, N. S.
- Stimulant Laboratories, Inc. See Cornell, F. M.
- Stiny, J., mechanical analysis for technical purposes, B., 991.
- Stirk, M. L. L. See Stiles, W.
- Stirling, A. D., and Wishart, G. M., hydrolysis of caseinogen by pepsin and by trypsin-kinase, A., 188.
- Stirnemann, E. See Lonza Elektrizitätswerke & Chem. Fabr. A.-G.
- Stirton, A. J. See Groggins, P. H.
- Stitt, R. E. See Beaumont, A. B.
- Stock, A., controllable oil-less valve, A., 481.
- Cucuel, F., and Köhle, H., determination of minute amounts of mercury in organic material, A., 520.
- Stock, A., Gerstner, F., and Köhle, H., atmospheric oxidation of mercury, A., 239.
- Lux, H., Cucuel, F., and Köhle, H., micro-determination of traces of mercury, A., 245.
- Ramsier, H., and Eyber, G., measurements with gas-density balance; fluctuations in density of the air, and its oxygen content, A., 250.
- and Wiberg, E. [with Martini, H., and Nicklas, A.], boron hydrides. XVII. Electrolysis of solutions of boron hydrides in anhydrous ammonia, A., 34.
- Stock, E., "methanol index" of vegetable oils, B., 476. Laboratory vacuum [-distillation] apparatus for the varnish works, B., 478. Use of vegetable lecithins in paint preparations, B., 556. Fluorescence testing, B., 1067.
- Stock, J., *Aspergillus niger* as an indicator of manurial requirement, B., 564.
- Stockdale, D., constitution of the aluminium-rich aluminium-copper alloys above 400°, A., 1111.
- Stockdale, J. See Wiggin & Co., Ltd., H.
- Stockdale, T. E., and Standard Oil Co., pipe-still distillation [of petroleum oils], (P.), B., 456.
- Stocker, E., and Munitex Corp., making effect threads [immunised cotton, etc.], heat- and storage-proof, (P.), B., 545. Treatment of cellulosic fibres [for modifying their lustre and dyeing properties], (P.), B., 1053.
- Stockhausen, F., and Silbereisen, K., flocculating substances produced from brewery yeast, B., 1077.
- Stockhausen, H., Schlotterbeck, F., Cremer, C., and Heeking, A., sulphonation of oils and fats, (P.), B., 76.
- Stockhausen, H. von. See Gehring, A.
- Stockhausen, J., degumming of real silk, B., 422.
- Stockholms Benmjölsfabriks Aktiebolaget, glues and the application thereof, (P.), B., 724.
- Stockklausner, F. See Nolte, O.
- Stockmair, W. See Hölzl, F.
- Stockman, R., and Johnson, J. M., cereal food poisoning and its relation to the etiology of pellagra, A., 1191.
- Stoddard, E. S., and Conover Co., detergent composition, (P.), B., 156.
- Stoddard, K. B. See Hansen, W. W.
- Stoddard, W. B. See Rollhaus, P. E.
- Stoddart, E. M. See Briscoe, H. V. A., and Pearson, T. G.
- Stoecker, J. See Feldmann, W., and Grethe, K.
- Stöckly, J. J., Bartunek, R., and Amer. Glanzstoff Corp., maintaining the composition of viscose precipitating baths containing magnesium sulphate, (P.), B., 461.
- and Witte, E., forming artificial silk, etc., having a matt appearance, (P.), B., 543.
- Witte, E., and Amer. Glanzstoff Corp., purification of cellulose solutions, (P.), B., 743. [Opaque or matt] artificial silk, (P.), B., 1005.
- Stöhr, R., influence of sex and age on liver- and muscle-glycogen, and alkali reserve in fasting rats, A., 88. Physiological behaviour of the trioses and related compounds. III. Muscle-glycogen and blood-sugar after feeding methylglyoxal and glyceraldehyde.

Stöhr, R.—continued.

- IV. Alkali reserve after feeding methylglyoxal, glyceraldehyde, dihydroxyacetone, and glucose, and its relation to liver-glycogen: alimentary hyperglycemia, A., 88. Glycogen formation from succinic acid, A., 855. Glycogen mobilisation by sodium hydrogen carbonate, A., 855. Glycogen formation from lower fatty acids with an even number of carbon atoms. I. Glycogen formation from acetic acid. II. Glycogen formation from *n*-butyric acid, A., 855, 1193. Behaviour of the alkaline reserve of rats after feeding with glucose and fructose, A., 975.
- and Henze, M., action of methylglyoxal on acetoacetic acid. IV. Muscle-glycogen, alkali reserve, and blood-sugar after ketol feeding, A., 88.
- and Müller, R., behaviour of liver-glycogen, alkali reserve, and blood-sugar after acetol feeding, A., 88.
- See also Cohn, B. N. E.
- Stoess, U. See Rippel, A.
- Stoesser, W. C., and Dow Chem. Co., separation of cuprous and ammonium chlorides, (P.), B., 914.
- See also Britton, E. C.
- Stöter-Tillmann, H., ovens for producing coke and coal gas, (P.), B., 579.
- Stoffers, O. See Fischer, F. G.
- Stoffregen, H., heat exchange in steel-treating furnaces, B., 230.
- Stogov, A. F., and Peltz, E. I., magnetic properties of cast steel intended for permanent magnets, B., 65. Verkh-Isetsk transformer steel, B., 65.
- Stohl, M. See Vogel, H.
- Stohman, E. F. See Smith, M. I.
- Stokes, J. S. See Novotny, E. E.
- Stokes, W. E., Peter, A. H., and Royal Baking Powder Co., conversion of carbohydrates into products of higher oxidation [tartaric acid], (P.), B., 777.
- Stoklasa, J., acceleration of the degradation of organic substances in stable manure in the soil, B., 82.
- Stoldt, W., lead poisoning from paints removed by sandblasting, B., 990.
- Stolf, G. See Mazza, F. P.
- Stoll, A., chemical course of photosynthesis, A., 326.
- and Kreis, W., heart glucosides. I. II. Genuine glucosides of *Digitalis lanata*, diglignans A, B, and C, A., 877, 1146.
- Suter, E., Kreis, W., Bussemaker, B. B., and Hofmann, A., cardiac glucosides. I. Heart-activating substances of squill; scillaren A, A., 811.
- and Wiedemann, E., conversion of chlorophyll b into chlorophyll a, A., 167. Chlorophyll. III.—V., A., 287, 515, 838.
- Stoll, F. See Lottermoser, A.
- Stoll, M. See Karrer, P., and Ruzicka, L.
- Stoll, W. See Ahrens, G.
- Stollé, R. [with Hecht, H., and Becker, Walter], derivatives of *N*-substituted oxindoles and isatins, A., 283.
- [with Kramer, O., Schick, E., and Erbe, H.], reactions of diacylhydrazide chlorides with sodium azide, A., 838.
- [with Netz, A., Kramer, O., Rothschild, S., Erbe, H., and Schick, O.], derivatives of 1-aminotetrazole, A., 959.
- and Hanusch, F., reaction of 2:4-dichloroquinazoline with sodium azide, A., 401. Reactions of 2:4-dichloroquinazoline and 2:3-dichloroquinoxaline with sodium azide, A., 404.

- Stollé, R., and Merkle, M., 2:3:2':3'-tetrahydro-3:3'-bisbenzisothiazylene, A., 1311.
- and Roser, O., acid derivatives of aminotetrazole, A., 515.
- Stollenwerk, W., determination of acids in, and evaluation of, silage, B., 360.
- See also Ihle, K.
- Stolte, N. H. See Fabianae, W. L.
- Stone, C. W. See Gen. Electric Co.
- Stone, H. G., and Eastman Kodak Co., purification of sodium acetate, (P.), B., 266.
- Stone, I., detection of mercury in organic compounds, A., 731.
- Stone, J. C. R., [copper-nickel] alloy, (P.), B., 111.
- Stone, M. W., and Campbell, R. E., chloropierin as a soil insecticide for wireworms, B., 519.
- See also Campbell, R. E.
- Stone, R. H., graphite as a refractory, B., 268.
- Stone, R. V., modified Quevenne lactometer for the public health laboratory control of market milk, B., 941.
- Stone, V., and Travers, M. W., distillation of coal under very low pressures, B., 899.
- Stone, W. E., Boyden, B. L., Wisecup, C. B., and Tatman, E. C., control of the celery leaf tier in Florida, B., 37.
- See also Yost, D. M.
- Stone, W. S., rôle of lipoidal substances in complement fixation, A., 176.
- Stoneburner, C. F. See Taylor, L. S.
- Stoner, E. C., atomic moments of ferromagnetics, A., 448. Atomic moments in ferromagnetic metals and alloys with non-ferromagnetic elements, A., 557. Interatomic distances and ferromagnetism, A., 557.
- Stones, F. W. See Cummings, L. W. T.
- Stoody, W. F., Relling, T., and Stoody Co., metal carbides, (P.), B., 634.
- Stoody Co. See Genuit, J. W., and Stoody, W. F.
- Stopp, R. See Lorenz, R.
- Stoppard, A. See Williams, Ltd., J. W.
- Stoppel, R., space charge and its relation to chemical components of the atmosphere, A., 5.
- Storeh, E. A. See Niederl, J. B.
- Storch, H. H., thermal decomposition of methane by a carbon filament, A., 32.
- and Golden, P. L., synthesis of acetylene by pyrolysis of methane, A., 930. Preparation of pure methane from natural gas, B., 134.
- and Roessler & Hasslacher Chem. Co., synthesis of methyl alcohol, (P.), B., 696.
- Storey, H. H., and Leach, R., tea yellows disease, B., 245.
- Storey, O. W., and Burgess Battery Co., [electrolytic] production of manganese dioxide, (P.), B., 588.
- Storfer, E. See Walter, G.
- Storks, K. H., artificial anthracite, B., 898.
- Storr, B. V. See Berry, W. A.
- Story, B. W., and Kalichevsky, V. A., photo-electric colorimeter for measuring colour intensities of liquid petroleum products, B., 554.
- Story, L. R. G. See Bennett, H. T.
- Stott, E. See Speakman, J. B.
- Stott, V. H., measurement of the viscosity of a molten metal by means of an oscillating disc, A., 895.
- See also Rosenhain, W.

- Stoughton, R. W., and Adams, R., stereochemistry of diphenyls. XXV. Relative interfering effects of the groups F, OMe, Cl, and Br as determined by the relative rates of racemisation of 2'-substituted 2-nitrodiphenyl-6-carboxylic acids, A., 63.
- Stout, A. W., and Schuette, H. A., rapid preparation of aldehyde-free ethyl alcohol, B., 457.
- Stout, H. H., and Copper Deoxidation Corp., vessel for fire refining [of metal], (P.), B., 833.
- Stout, L. E., electrodeposition of alloys, B., 67.
- and Drostén, F., heat flow through bakery products. I. Time-temperature relationships existing during the baking of bread, B., 489.
- and Faust, C. L., electrodeposition of iron-copper-nickel alloys. III. Deposition from sulphate-boro-citrate baths, B., 922.
- Stout, P. R. See Hibbard, P. J.
- Stoutenbeek, P. See Ornstein, L. S.
- Stover, J. H. See Parsons, J.
- Stover, R. See Weber, H. H.
- Stowe, D. See Preston, E. F.
- Stowe, L. See Preston, E. F.
- Stowe & Co., E. See under Preston, E. F.
- Stowell, H. T., and Nat. Aniline & Chem. Co., purification of diamino-*aa'*[1:5- and 1:8]-dihydroxyanthraquinonedisulphonic acid dyes, (P.), B., 262.
- Stoyke, W. A. R. See Ryde, J. W.
- "Straba" Strassenbaubedarfs Akt.-Ges., pulverulent hydraulic binding medium, (P.), B., 671.
- Strachan, C., reflexion of light at a surface covered by a unimolecular film, A., 206.
- Strachan, J., early history of wood-pulp testing [for moisture], B., 14. Design of pulp-drying ovens, B., 14. Bewoid process and theory of rosin sizing [of paper], B., 14. Durability and permanence of modern paper, B., 14. Porosity and air space of paper, B., 14. Practical factors in permanence of sulphite papers, B., 186. Hydration of cellulose in papermaking, B., 343. Essential properties of vegetable parchment, B., 382. Dendritic growths in paper, B., 300. Nature and functions of hygroscopic water in cellulose and paper, B., 423. Hydration of cellulose in the beating process, B., 618. Functions of mineral fillings in printing papers, B., 743. "Safety" papers, B., 911.
- Holmes, J., and Kingcome, H. A., evaporators, (P.), B., 945.
- Strack, E., unilateral feeding, A., 306.
- Neubaur, E., and Geissendörfer, H., choline (acetylcholine?) content of animal tissue, A., 1318.
- and Schwaneberg, H., diaminobutanes. I. *dl*- $\alpha\beta$ -Diaminobutane;  $\alpha\beta$ -diamino- $\beta$ -methylpropane (*dl*- $\alpha\beta$ -diaminopropane), A., 1148.
- Strack, W. See Nill, E. A.
- Strada, M., catalysts for synthesis of aliphatic alcohols: characteristics of their action and relations between their composition and activity, B., 259. Influence of the nature of the catalyst on the purity of methyl alcohol synthesised from water-gas, B., 539.
- See also Natta, G.

- Strafford, N.**, detection and determination of small amounts of inorganic substances by colorimetric methods, A., 1133.
- and **Parry-Jones, R. T.**, determination of small amounts of pyridine in nicotine, B., 764.
- Strain, H. A.**, and **Steudel, G. E.**, blast furnace, (P.), B., 833.
- Strain, H. H.**, ozonisation of lycopene; formation of levulinic acid and levulaldehyde, A., 1138. Carotene. V. Formation of geronic acid by ozonisation of carotene, dihydrocarotene, and related compounds, A., 1151.
- See also **Spoehr, H. A.**
- Strand, R.** See **Allcroft, W. M.**
- Strandring, T.**, detection of lactosuria by the bacterial method of Castellani and Taylor, A., 525.
- Strange, E. H.**, and **Kane, T.**, esters [from lower aliphatic acids and olefines], (P.), B., 954.
- Strangeways, (Miss) W. I.** See **Cohen, A.**
- Stranski, E.**, action of curative waters on composition of the blood. I. Influence of Karlsbad water on serum-calcium, A., 1199.
- Stranski, I. N.**, and **Totomanov, D.**, Ostwald's gradation rule, A., 115. Rate of formation of nuclei, and Ostwald's rule of transformation in stages, A., 461.
- Strasser, A.**, and **Germann, W.**, corrosion-proof aluminium alloys, (P.), B., 312.
- See also **Germann, W.**
- Strasser, E.** See **Weissberger, A.**
- Strasser, F.**, solder for aluminium, (P.), B., 396.
- Strasser, O.** See **Wolf, K. L.**
- Stratford, C. W.**, treatment of hydrocarbon distillates and apparatus therefor, (P.), B., 378.
- Stratford, R. K.**, **Doohan, W. P.**, and **Standard Oil Development Co.**, removal of corrosive sulphur from hydrocarbon oils, (P.), B., 952.
- Moor, H. H.**, and **Standard Oil Development Co.**, purification of petroleum distillates with aqueous phenol and recovery of same, (P.), B., 615.
- and **Standard Oil Development Co.**, recovery of solvents used in purification of hydrocarbons, (P.), B., 615.
- Treatment of mineral oils, (P.), B., 853.
- Stratmann, F. W.** See **Haarmann, W.**
- Stratmann, H.**, and **Werner, F. G.**, [purification of] heat-interchanging brines, (P.), B., 702.
- Stratmann, H.** and **Werner.** See under **Stratmann, H.**
- Stratta, R.**, camera for Laue spectrograms, A., 1134.
- and **Vernazza, E.**, action of the silent electric discharge on ethylene. III., A., 804.
- Stratton, R. H.**, and **Atlas Powder Co.**, explosive composition, (P.), B., 685.
- Straub, F. G.**, and **Larson, R. F.**, decomposition of dilute sodium carbonate solutions at temperatures between 147° and 243°, A., 129.
- Straub, Jan.**, membrane equilibria and "harmonies," A., 776. Work of the Amsterdam Testing Station during 1932, B., 651.
- and **Malotaux, R. N. M. A.**, calorimetric analysis of organic systems. I. Apparatus and applications, A., 465.
- Straub, Johann.**, iodine content of iodine eggs, B., 330.
- Straub, W.**, and **Fernández, E. M.**, intestinal motility. V. Analysis of atropine alkaloids, A., 531.
- and **Leo, E.**, resorption of water and of water from salt solutions in the intestine, A., 744.
- and **Ozaki, M.**, intestinal motility. VI. Effect of morphine alkaloids, A., 1327.
- Straube, G.**, effect of callicrein in decreasing blood-sugar, A., 1335.
- Straumanis, M.**, and **Strenk, C.**, stannous oxide, A., 918.
- and **Weerts, J.**,  $\beta$ -transformation in copper- and silver-zinc alloys, B., 232.
- See also **Centnerszwer, M.**
- Straumann, R.**, nickel-iron alloy springs, (P.), B., 68. Alloys for springs with a low temperature coefficient of elastic modulus, B., 1012.
- Straus, F.**, **Kollek, L.**, and **Winthrop Chem. Co.**, chlorinated and brominated ethincarbonils [acetylenic alcohols], (P.), B., 260.
- Strauss, B.**, [origin of non-rusting steels], B., 1060.
- Strauss, E.** See **Bauer, Hugo.**
- Strauss, F.**, **Heinze, H.**, and **Salzmann, L.**, ricinoleic acid and  $\lambda$ -hydroxystearic acid, A., 593.
- See also **Helferich, B.**
- Strauss, K.** See **Goldschmidt, S.**
- Strauss, Margaret B.** See **Buell, M. V.**, and **Heath, C. W.**
- Strauss, Maurice B.**, anaemia of infancy from maternal iron deficiency in pregnancy, A., 1069.
- Strauss, W.** See **Hahn, M.**
- Strausser, P. C.**, progress report on exposure tests of plated coatings, B., 110.
- Strazewicz, W. J.**, effect of time of harvesting on content and quality of essential oils from valerian rhizome and root, B., 333.
- Stream-Line Filter Co., Ltd.**, **Hele-Shaw, H. S.**, and **Baker, S.**, [stream-line] filters, (P.), B., 945.
- and **Williams, W. N.**, filters or separators, (P.), B., 370.
- Streb, E.**, welding wire for the acetylene welding of steel, B., 870.
- and **Kemper, H.**, addenda for the acetylene welding of steel, B., 968.
- Street, A. C.** See **Allen, N. P.**
- Street, O. E.** See **Anderson, P. J.**
- Street, W. O.** See **Platt, S.**
- Streitwolf, K.**, **Fehrle, A.**, **Herrmann, Walter**, **Fritzsche, P.**, and **Winthrop Chem. Co.**, bismuth-dithioglycollic acid and its salts, (P.), B., 1085.
- Fehrle, A.**, **Herrmann, Walter**, and **Winthrop Chem. Co.**, crotonylaminobenzencarsonic [crotonamidophenylarsinic] acids and their salts, (P.), B., 1036.
- Strelnikov, A. N.**, electrochemical properties of the ternary system iodine-water-sodium iodide, A., 1247.
- Strenk, C.** See **Straumanis, M.**
- Strezynski, G. J.**, and **De Laval Separator Co.**, centrifugal separator bowl, (P.), B., 897.
- Fraser, N. A.**, and **De Laval Separator Co.**, concentrated and purified rubber latex, (P.), B., 722.
- Strial, K.** See **Hüttig, G. F.**
- Stribling, R. M.**, dyeing of rayon skeins with direct dyes, B., 461.
- Strickler, A.**, and **Adams, P. D.**, blood-sugar metabolism in dermatoses; acne vulgaris, A., 852. Cholesterol metabolism in certain dermatoses, A., 852.
- Strickler, H. W.** See **Huston, R. C.**
- Striebel, H.** See **Hönigschmld, O.**
- Strieder, F.** See **Berek, M.**
- Strigel, R.**, discharge delay in homogeneous electric fields and in air at atmospheric pressure, A., 548.
- Strindlund, J.**, and **Chemipulp Process, Inc.**, apparatus for recovering acid and heat units thereof from digesters and for preparing digester liquor, (P.), B., 544.
- Stringfellow, W. A.** See **Neale, S. M.**
- Stroble, C. J.**, and **Allegheny Steel Co.**, electrical steel, (P.), B., 793.
- Strock, L. W.**, crystal structure of carbonatotetramminocobaltic sulphate, A., 1004. Crystal structure of nitropentamminocobaltic perchlorate, A., 1106. Crystal structure of carbonatotetramminocobaltic perchlorate, A., 1107.
- Stroecker, R.**, test for cacao and butter fat, B., 28.
- and **Schneer, J.**, detection of permanently pasteurised milk, B., 329.
- Stromgren, S.**, and **Allmänna Svenska Elektriska Aktieab.**, means of conditioning air for dehydrating purposes, especially for withering tea leaf, (P.), B., 177.
- Strong, F. M.**, and **McElvain, S. M.**, piperidine derivatives. XII. Local anaesthetics derived from reduction products of 3-acetylpyridine, A., 399.
- Strong, J.**, transmission of gases from 20 to 33  $\mu$ , A., 208. Apparatus for spectroscopic studies in the intermediate infra-red region, 20—40  $\mu$ , A., 247.
- and **Woo, S. C.**, far infra-red spectra of gases, A., 6.
- Strong, R. A.** See **Burrough, E. J.**
- Strosacker, C. J.**, **Kennedy, C. C.**, **Pelton, E. L.**, and **Dow Chem. Co.**, alkali acetates, (P.), B., 624. Preparation of bromoisatin, (P.), B., 1000.
- Stephenson, W. T.**, and **Dow Chem. Co.**, alkali acetates, (P.), B., 624.
- Stross, M. J.** See **Wirth, C.**
- Strouse, S.** See **Soskin, S.**
- Stront, A. L.**, **Lyder, E. E.**, and **Standard Oil Co. of California**, finely-divided carbon, (P.), B., 660.
- Strube, J.**, and **Luster, G.**, relation of baking volume to size and form of the batch, B., 167.
- Strubin, M.**, surface evaporation of boiling liquids, A., 1009.
- Structural Gypsum Corporation.** See **Amoss, W.**, and **Porter, J. M.**
- Structural Products Corporation.** See **Witty, G.**
- Strüneck, G. von.**, manurial action of lignite, B., 565.
- Struger, S.**, effect of [H<sup>+</sup>] on growth and geotropism, A., 102.
- Strukov, I. T.** See **Magidson, O. Y.**
- Strum, E.**, and **Duran-Reynals, F.**, properties of the causative agent of a chicken tumour. VIII. Effect of testicle extract on rate of growth of chicken tumour-I, A., 302.
- See also **Murphy, J. B.**
- Strunck, G. von.**, action of magnesium in acid soils, B., 34.
- Strunnikov, N. A.** See **Khazanov, S. I.**
- Strunz, H.** See **Gossner, B.**
- Struselba, M. M.** See **Sakharov, G. L.**
- Struss, E. F.** See **Adkins, H.**
- Struthers Wells-Titusville Corporation.** See **How, H. W.**
- Strutinski, V.**, dry cossettes stored for a long period, B., 760.
- Stryker, A. R.**, gas-producing apparatus, (P.), B., 214.



- Strzemiński, K., withdrawal of nitrogen and potassium from potato seed tubers resulting from nutrient deficiencies in soil, B., 1026.
- Stschigol, M., determination of chlorine by Volhard's method, A., 135. Determination of chloride in presence of bromide and iodide, A., 686. Determination of halogens in pharmaceutical preparations and drugs, B., 411. Determination of chloroform [as such and] in pharmaceutical mixtures, B., 891.
- See also Fialkov, J.
- Stuart, A. D. See Pierre, W. H.
- Stuart, H. A., and Volkmann, H., relation of the anisotropy of optical polarisability to geometrical structure of molecules, A., 211. Electrical Kerr effect and association in liquids. I. Kerr effect in liquids and solutions and its dependence on temperature. II. Orientation in liquids and its influence on molecular refraction, molecular polarisation, degree of depolarisation due to molecular light scattering, and on the Kerr effect, A., 889. Electrical Kerr effect with gases and vapours at higher temperatures, A., 1104.
- Stuart, H. O. See Anderson, A. F.
- Stuart, K. E., and Hooker Electrochem. Co., electrolytic cathode-diaphragm structure, (P.), B., 273, 475, 512. Electrolytic cell, (P.), B., 396. Electrolytic cell [for electrolysis of sodium chloride], (P.), B., 475.
- Stuart, L. S. See Frey, R. W., and Hall, H. H.
- Stuart, N. See Finch, G. I., and Thomson, G. P.
- Stuart, N. W., nitrogen and carbohydrate metabolism of young apple trees as affected by excessive applications of sodium nitrate, A., 102.
- Stuart, R. W. See McIntyre, G. H.
- Stuart, W. W. See Pirone, P. P.
- Stubbings, E. O. See Durant, H. T.
- Stubbs, J. J. See Senseman, C. E.
- Stubbs, J. R., and Lees, Arnold, examination of a proposed method for identification and determination of oils and fats, B., 434.
- See also Elsdon, G. D.
- Stuber, B., and Lang, K., effect of iodoacetic acid on coagulating systems and fermentative processes; blood-glycolysis and coagulation, A., 1182.
- Stuber, E. See Kijatschkina, B.
- Stuber, E. Y., and Klyachkina, B. A., analysis of morphine hydrochloride of the Pharmacopoeia, B., 172.
- Stuckert, L., titanium potassium oxalate, A., 1142. Acid-resisting enamel in the chemical industry, B., 627.
- Stucki, W. See Eder, R.
- Stüber, C. See Manegold, E.
- Stüber, O., f.p. of milk, B., 522.
- See also Bauer, K., and Kailan, A.
- Stueckelberg, E. C. G., continuous absorption of oxygen at 1450 Å., A., 107.
- Stücklen, H., physics of cold and of the atomic nucleus, A., 1226.
- Stühler, R. See Mönch, G.
- Stürber, residual effect of kainit [in weed destruction] after 5 years, B., 518.
- Stuhlman, O., jun., mathematics of effervescence, A., 775.
- Stuhmer, G. See Mecheels, O.
- Stull, A., Cooke, R. A., and Barnard, J. H., biological identity of grass pollens causing hay fever, A., 179.
- Stull, A., Cooke, R. A., and Chobot, R., allergically active substance in pollen; *Phleum pratense* (timothy) pollen, A., 179.
- Stulz-Sickles Co. See Payne, B. H.
- Stumper, R., dynamics and catalysis of the thermal decomposition of hydrogen carbonates in aqueous solution. VIII. Decomposition of sodium hydrogen carbonate, A., 357.
- Sturgis, M. B., effect of additions of nitrogen on decomposition of sugar-cane trash under field conditions, B., 85.
- Sturkie, D. G., control of weeds in lawns with calcium cyanamide, B., 404.
- Sturm, A., and Schulz, J., action of iodine on glycolytic metabolic processes, especially fermentation by yeast; effect of iodoacetic acid, A., 980.
- Sturm, E. See Murphy, J. B.
- Sturm, H. See Mönch, G.
- Sturm, R., correlative regulation of organic and inorganic constituents of venous blood in disease; parallel determination of lactic acid, ketones, phenols, carbon dioxide, sodium, chlorine (potassium, calcium, phosphorus), and  $pH$ , A., 413.
- Sturm, W. A. See Smith, S. B.
- Sturnajolo, M. See Calcagni, G.
- Sturrock, N. C., coal testing and other aids in control of carbonisation, B., 417.
- Štursa, F. See Veselý, V.
- Sturtevant, T. J., and Sturtevant Mill Co., air separator, (P.), B., 177.
- Sturtevant Co., B. F. See Derry, G. C.
- Sturtevant Engineering Co., Ltd., and Wagner, H. W., electrostatic dust precipitation, (P.), B., 314.
- Sturtevant Mill Co. See Sturtevant, T. J.
- Stutterheim, G. A., working up iodine residues, A., 361.
- Stutz, G. F. A. See New Jersey Zinc Co.
- Stutz, R. E., and Shriner, R. L., preparation and properties of di-*n*-butane-sulphonylmethane, A., 488.
- Stutzke, S. See Kisch, B.
- Stutzman, M. J., effect of nickel on stability of iron carbide and on microscopic structure of white cast-iron compositions, B., 609.
- Styazhkina, E. G. See Nikolaiev, V. I.
- Styer, C. A. See Westinghouse Electric & Manufg. Co.
- Style, D. W. G. See Horn, E.
- Styri, H., sintered tungsten carbide Brinell balls, B., 152.
- Su, K. C., and Huang, T. C., Joule-Thomson effect and heat capacity at constant pressure for ammonia, A., 668.
- See also Huang, T. C.
- Subbaraya, T. S. See Venkatesachar, B.
- Subkow, P., and Union Oil Co. of California, high-vacuum steam-distillation, (P.), B., 4. Rectification of vapours, (P.), B., 177.
- Subrahmanyam, V., and Siddappa, G. S., effect of yeast extract on growth of plants, A., 1342.
- See also Giri, K. V., and Rao, J. J.
- Sucharda, E., and Mazoński, T., preparation of amyl and hexyl formate from cracking oils, B., 497.
- Suchorukov, K. T., enzymic activity of plant organism and phenomena of physiological immunity, A., 990.
- and Borodulina, N. A., nitrogen metabolism of alkaloidal plants, A., 878.
- Suchtelen, E. F. van, dispersion of liquid materials, (P.), B., 495.
- Suciu, G. See Spacu, G.
- Suckfüll, F. See Mischeel, F.
- Sucksdorf, I. See Hägg, G.
- Sucksmith, W., magnetic susceptibilities of paramagnetic substances, A., 114.
- Sudlow, E. W. See Fuller, L.
- Sudzuki, R., reaction between malonic acid and naphthols in presence of zinc chloride, A., 822.
- Sueda, H. See Uemura, T.
- Süe, P., determination of niobium by 8-hydroxyquinoline, A., 585.
- and Wétroff, G., alkali salts of 8-hydroxyquinoline, A., 836.
- Süllmann, H., mechanism of the action of narcotics, A., 860.
- Sueno, T. See Kondo, S.
- Suenderhauf, H. E. See Fichter, F.
- Suessenguth, K., activation of plant enzymes, A., 92.
- Suetsugu, T. See Ishida, Y.
- Suga, T. See Takamine, T.
- Sugasawa, S. See Robinson, R.
- Sugden, J. A. See Vickers, A. E. J.
- Sugden, S., dielectric constants of organic liquids, A., 888. Magnetism of free radicals, A., 1232.
- See also Bell, F.
- Sugg, J. Y. See Neill, J. M.
- Sugino, E. See Iwasaki, S.
- Sugino, K. See Katō, Y.
- Sugishima, I., specific effect on the stomach of the secretions of the fundic glands. I. Normal secretion of the Pavlov stomach. II. Influence of parenteral injection of emulsions of gastric mucosa on secretory activity of the Pavlov pouch, A., 84, 985.
- Suhrmann, R., influence of H<sup>+</sup> and OH<sup>-</sup> ions in concentrated acids and alkalis on the infra-red absorption spectrum of water, A., 998.
- and Breyer, F., investigation of influence of solute on solvent by means of infra-red absorption spectrum. I. Effect of dissolved salts on state of association of solvent water, A., 348.
- and Schallamach, A., origin of the spectral selective photo-electric effect in thin alkali metal films, A., 3.
- Suida, H., and Planckh, R., isoparaffins of high mol. wt., A., 1270.
- and Pöll, H., Austrian petroleums, B., 611. Action of paraffin [on lubricating oils], B., 691.
- and Sadler, H., determination of resin [milk] by turbidity measurement and its application to [pulp]-sizing experiments, B., 698.
- and Uiberreiter, G., breakdown of emulsions for road construction in contact with Austrian stones, B., 829.
- See also I. G. Farbenind.
- Sukachev, V. V. See Yurchak, I. I.
- Sukhovolskaja, S. D. See Rozov, B. I.
- Suknevitch, I. F., and Tschillingarian, A. A., action of calcium hypochlorite on alcohols, aldehydes, and ketones, A., 372.
- Suknevitch, J., and Budnitski, S., constitution of tribromophenol bromide and analogous compounds, A., 946.
- Sullivan, B., and Howe, M. A., lipases of wheat. I., A., 315.
- and Near, C., change of crude lipins of wheat on storage, B., 521.
- See also Hartig, H. E.
- Sullivan, F. W., jun., Arveson, M. H., and Standard Oil Co., lubricating grease, (P.), B., 538.
- McGill, W. J., and Standard Oil Co., low-cold-test lubricating oil, (P.), B., 499.
- and Standard Oil Co., textile oil [lubricant for fibres], (P.), B., 661.

- Sullivan, J. D. See Williams, C. E.
- Sullivan, J. T., and Cullinan, F. P., carbohydrate and nitrogen relationships in apple shoots as influenced by soil management, A., 198.  
See also Kraybill, H. R.
- Sullivan, M. X., and Hess, W. C., cancer: application of the Rupp-Schied-Thiel thiocyanate reaction to urine, A., 1070. Ergothioneine in urine, A., 1187. Evaluation of the Rupp-Schied-Thiel method as a test for thiocyanate in urine, A., 1188.  
See also Hess, W. C.
- Sullivan, T. G., making of rubber-colouring material, (P.), B., 1023.
- Sullivan, W. N. See Campbell, F. L., and Jones, H. A.
- Sulman, H. L., and Picard, H. F. K., recovery of hydrocyanic acid from complex cyanides and waste liquors, (P.), B., 702.
- Sulmann, F., hæmotoxic behaviour of glutamic acid, A., 175.
- Sulphide Research Corporation, Ltd. See Freeman, H.
- Sumerford, S. D. See White, A. McL.
- Summa, O. See Schwarz, M. von.
- Summers, S. L., condensation product of diethyl ester of methylenedisalicylic acid di-*p*-aminobenzyl ether [ethyl 4:4'-di-*p*-aminobenzyl oxydiphenylmethane-3:3'-dicarboxylate] with pyruvic acid, B., 124.
- Summers, W. H. See Goode, E. A.
- Sumner, C. G., formation, size, and stability of emulsion particles. I. New method of omulsification, A., 460.
- Sumner, J. B., chemical nature of enzymes, A., 424.  
Kirk, J. S., and Howell, S. F., digestion and inactivation of crystalline urease by pepsin and papain, A., 915.
- Sun, I., ginseng root (*Panax ginseng*, Song-Sam), A., 876.
- Sun-A-Sured, Inc. See Pacini, A. J.
- Sun Oil Co. See Chatfield, V. M., Guthrie, R. G., Pew, A. E., jun., Thomas, Henry, and Wait, J. F.
- Sundelin, A. See Adelsköld, V.
- Sundelin, G., Franck, O., and Larson, C., determination of fertiliser requirement of soil. I, B., 981.
- Sunder, C., oxalic-chromic acid discharge [for indigo], B., 462.
- Sunderman, F. W., Austin, J. H., and Williams, P., serum electrolytes. VIII. Concentration of serum-electrolytes and non-electrolytes following insulin administration in diabetic patients, A., 852.  
and Williams, P., determination of chloride in tissues, A., 1184. Carius digestion for the measurement of chloride in biological material, A., 1317.
- Sundius, N., gaps in the series anthophyllite-gedrite, cummingtonite-grunerite, and tremolite-actinolite, A., 252. Properties of  $\alpha$ - and  $\beta$ -dicalcium silicate and the dicalcium silicates of Portland cement clinkers, B., 867.
- Sundstrom, R. F. See Schumb, W. C.
- Suneson, S., iodine volatilisation by *Laminaria* species, A., 328. Nitrate storage by higher marine algae, A., 437.
- Suomalainen, P., effect of C-avitaminosis on the lipase and catalase content of the animal body, A., 542.  
See also Virtanen, A. I.
- Suominen, E. E. See Späth, E.
- Superfine Chemicals, Ltd. See Dering, H. O.
- Supper, R., action of [seed] dusts, B., 85.
- Suppiger, G. S., and Scientific Tablet Co., flavouring in canning, preserving, and bottling [food products] operations, (P.), B., 891.
- Supplee, G. C., Beck, H. H., and Dorcas, M. J., irradiated milk; influence of intensity and character of the radiations on the antirachitic potency, B., 122.  
See also Bender, R. C.
- Surányi, G., effect of commercial fertilisers on quality of wheat, B., 483.
- Sure, B., vitamin-B-deficient ration, A., 1090.  
and Buchanan, K. S., avitaminosis. XIII. Effect of vitamin-A deficiency and vitamin-D deficiency on differential leucocyte count of the albino rat. XII. Influence of vitamin-B deficiency on differential leucocyte count of the albino rat during lactation, A., 432.
- Surface Combustion Corporation. See Cowan, R. J., and De Coriolis, E. G.
- Surzycki, T. See Marchlewski, L.
- Susemihl, W. See Hock, H.
- Sushkina, N. N., nitrification of forest soils and its dependence on the character of the plantation, felling, and burning of the felled timber, B., 726. Influence of irrigation on the soil microflora, B., 838.
- Sushko, S. Y., takyrs soils and methods for their improvement, B., 401. Dynamics of soluble salt in soils irrigated by flooding, B., 725.  
and Dimitrieva, E. F., alkalinity and dispersion in solonchak soils, B., 759.
- Susich, G. von. See Meyer, K. H.
- Suslov, D. K., and Merkulov, M. I., Kuznetchikha (Russia) deposits of zinc-copper ores, A., 141.
- Susquehanna Silk Mills. See Byrod, F. R.
- Sussmann, M. N. See Chilikin, M. M.
- Susz, B. See Friedheim, E. A. H.
- Suszko, J., and Tomanek, A., stereochemical arrangement about the carbonyl carbon atom in quinine alkaloids, A., 288.  
See also Domański, T., Dubas, T., Jarzyński, L., Jastrzebski, M., Konopnicki, A., Ludwiczakówna, R., and Piechulek, W.
- Sutcliffe, E. R., apparatus for recovery by adsorption of gases, vapours, or liquids, (P.), B., 898.
- Suter, C. M., and Gerhart, H. L., Grignard reagents from dialkyl sulphates, A., 1033.  
and Hansen, H. L., preparation and properties of 2:4-dimethoxyphenyl alkyl sulphides, A., 709.  
and Moffett, E. W.,  $\alpha$ -naphthylthiocarbimide as a reagent for primary and secondary aliphatic amines, A., 816.
- Suter, E. See Stoll, A.
- Sutermeister, E. See Torrey, W. V.
- Sutermeister, M. See Winslow, C. E. A.
- Sutherland, B. P. See Kirkpatrick, W. S.
- Sutherland, D. M., jun., rot-proof fibre [-board] product, (P.), B., 700.  
See also Brown, R. B.
- Sutherland, G. B. B. M., infra-red absorption bands of acetylene, A., 763. Infra-red absorption spectrum of nitrogen tetroxide and structure of the molecule, A., 1102. Raman effect at very low temperatures, A., 1103.
- Sutherland, J. See Penfold, W. J.
- Sutherland, L. See Westinghouse Electric & Manufg. Co.
- Suthers, A. J. See Robinson, F. A.
- Sutra, R., acetolysis of starch, A., 261. Structure of starch, A., 380. Action of acetic anhydride on starch in presence of sulphuric or phosphoric acid, A., 811.
- Sutter, H., and Wijkman, N., substances produced by action of moulds. II. Constitution of gluconic acids, A., 1143.
- Sutton, G. D. See Bleachers' Assoc.
- Sutton, H., protective coatings on metals, B., 591.
- Sutton, L. E., New, R. G. A., and Bentley, J. B., electric dipole moments of nickel carbonyl, di-iodoacetylene, diethyl sulphide, diethylsulphone, and decalin, A., 765.  
See also Hampson, G. C., Sidgwick, N. V., and Taylor, T. W. J.
- Sutton, T. C., thermochemistry and the periodic table; energy of transfer of electrons on oxidation, A., 27. Measurement of surface tension, A., 250. Structure of cyanuric triazide ( $C_3N_3$ )( $N_3$ ), A., 559.  
See also Ambler, H. R.
- Sutton, W. G., yolk in New Zealand wools. II. Yolk in the fleece during one year, B., 1049.
- Sutton, W. J., physical chemistry in porcelain manufacture, B., 965.
- Suvorov, A. G., apparatus for taking samples of gas at the moment of explosion, A., 1136.
- Suzuki, A. See Takahashi, Teizo.
- Suzuki, B. See Kabashima, I., Maruyama, T., Nishimoto, U., and Yokoyama, Y.
- Suzuki, E. See Shoji, T.
- Suzuki, Kenaro, relation between internal secretions and blood-calcium, especially in tumour animals; response of serum-calcium to hormones, A., 1321.  
See also Nakamura, Morio.
- Suzuki, Kozo, Nishikawa, T., and Aoki, S., seaweeds as animal feed. I. and II., B., 490.  
and Yazaki, A., nutritive value of soybean cakes, B., 936.
- Suzuki, T. See Ueno, Shigezo.
- Svanoe, H. See Du Pont de Nemours & Co., E. I., and Jeremiasen, F.
- Sváték, R., cause of dampening of sugar in storage, B., 166.
- Svechnikov, V. N., polymorphic transformation of iron at points A3' and A4, A., 119. Effect of admixtures on polymorphism of iron, A., 769.
- Svedberg, H. A. See Bergman, T. V.
- Svedberg, T., mol. wts. of the blood-pigments of the invertebrates, A., 409.  
and Eriksson, I. B., mol. wt. of phyco-cyan and of phycoerythrin. III., A., 100. Mol. wt. of the haemocyanin of *Octopus vulgaris*, A., 171. Degradation of ovalbumin with papain, A., 427. Molecular weight of new oxidation enzyme, A., 634. Mol. wt. of erythrocrucorin, A., 965.  
See also Mutzenbecher, P. von.
- Svensden, S. S., and Clay Reduction Co., hydrated silica, (P.), B., 427. Metallic sulphates [from silicates], (P.), B., 828. Aluminium hydroxide, (P.), B., 828.
- Svenska Ackumulator Aktiebolaget Jungner, and Mandahl, T. F., filters, (P.), B., 897.
- Svensson, B., magnetic susceptibility of electrolytically charged palladium-hydrogen alloys, A., 1238.

- Svensson, E., isotope effect in the spectrum of cadmium hydride, A., 108.  
and Tyrén, F., band spectrum of ionised cadmium hydride, A., 1095.
- Svensson, K. D., compositions comprising asphalt emulsions and products made therefrom, (P.), B., 181.
- Svetchnikov, A. V., polymorphic transformations of iron at the A3 and A4 points, A., 559.
- Svetchnikov, J. N., effect of added elements on polymorphism of iron, B., 869.
- Svirbely, J. L., ascorbic acid content of the adrenals and livers of different animals, A., 872.  
and Szent-Györgyi, A., chemical nature of vitamin-C, A., 541.
- Svoboda, F., biological value of protein in fodders from the viewpoint of its effect on growth, B., 890.
- Swain, R. C. See Porter, J. L.
- Swainson, S. J., Anderson, A. E., and Amer. Cyanamid Co., treatment of precious-metal-bearing ores, (P.), B., 473.
- Swallen, L. C., Bannister, W. J., and Commercial Solvents Corp., chemical compounds [metal salts of alkyl glyceryl phthalates], (P.), B., 219.  
and Commercial Solvents Corp., hydrogenation of crotonaldehyde, (P.), B., 218. Separation and recovery of products produced by alkaline fusion of cellulosic material, (P.), B., 586.
- Swamy, A. Y., and Bailey, F. W., factors relating to determination of  $\alpha$ -cellulose, B., 619.
- Swan, J. H., and Gardner-Richardson Co., paper, (P.), B., 960.
- Swan, P., making rice-straw pulp, and apparatus therefor, (P.), B., 264.
- Swanback, T. R., and Jacobson, H. G. M., brown rootrot of tobacco, B., 440.  
See also Anderson, P. J., and Jacobson, H. G. M.
- Swanker, H. J. See Hurd, C. B.
- Swann, S., jun., influence of iron salts on electrolytic reduction of benzophenone, A., 914. Electrolytic reduction of ketones in glacial acetic acid. I. Reduction of aromatic ketones, A., 1127.  
See also Faith, W. L.
- Swann Research, Inc. See Carothers, J. N., Davis, T. L., Durgin, C. B., Jenkins, R. L., Krase, H. J., Scott, T. J., Sikarski, J. A., Warning, W. G., and White, Harold E.
- Swanson, C. O., and Working, E. B., testing quality of flour by the recording dough mixer, B., 281.
- Swanson, E. E., relative pre-anæsthetic values of the sodium salts of ethylisomylbarbituric acid (amytal), pentobarbital, phenobarbital, and barbital, A., 185. Comparative pharmacological study of related ephedrine compounds, A., 185.  
See also Powell, C. E.
- Swanson, H. R. See Primrose, J.
- Swanson, P. P., and Smith, Arthur H., inorganic salts in nutrition. IV. Changes induced in the blood by a ration deficient in inorganic constituents. V. Progressive changes in the blood of rats maintained on a ration poor in inorganic salts, A., 90.
- Swanson, T. B. See Berry, P. A.
- Sward, G. G., instrument for hiding-power determinations [of paint], B., 1067.
- and Stewart, J. R., correlation of colour systems for varnishes, oils, resins, nitrocellulose lacquers, and other transparent coloured liquids, B., 1018.  
See also Gardner, H. A.
- Swartout, H. O. See Pratt, O. B.
- Swarts, F., hexafluoroethane, A., 591. Electrolysis of trihalogenated aliphatic acids; trifluoroacetic and chlorodifluoroacetic acids, A., 592.
- Swartz, S., and Jenkins Petroleum Process Co., motor fuel from residual oils, (P.), B., 539. Clarification of hydrocarbons containing suspended or colloidal complexes, (P.), B., 660. Motor fuel, (P.), B., 854.
- Swartzman, E. See Burrough, E. J.
- Swearingen, J. S., and Lewis, I. M., nature of the effect of carbon dioxide under pressure on bacteria, A., 1208.
- Swedin, B., plasma-protein, cholesterol, and [corpuscle] sedimentation rate in various kinds of animals, A., 410.
- Sweeney, L. S. See Darrow, M. S.
- Sweeney, W. T. See Hidnert, P.
- Sweet, A. D. See Hurd, C. D.
- Sweetman, M. D., relation of storage temperature of potatoes to their culinary quality, B., 650.
- Swenson, T. L., preservation of eggs, (P.), B., 890.
- Swenson Evaporator Co. See Caldwell, H. B., and Crewson, G. G.
- Sweo, B. J. See Harrison, W. N.
- Swett, W. W., Miller, F. W., and Graves, R. R., milk from amputated cow udders. I. Quantity. II. Composition, A., 83.
- Swientoslowski, W., neutronic equilibrium of isotopes, A., 110. Classification of zeotropic and azeotropic mixtures, A., 455. Universal ebullioscope and its applications, A., 586. Interpretation of Aston's data, A., 659. Ternary azeotropic mixtures. I. Application of differential ebullioscope to study of ternary azeotropic mixtures, A., 772. Ebullioscopic method for determining the equilibrium constant of esterification, A., 904.
- Chorąży, M., and Roga, B., improving the quality of Upper Silesian coke. VI. and VII., B., 5, 372.
- and Dorabalska, A., possibility of spontaneous emission of neutrons from non-radioactive elements, A., 335.
- and Usakiewicz, J., degree of purity of benzene, and dehydration by means of hetero-azeotropic distillation, B., 1043.
- and Wajcenblit, L., ternary azeotropic mixtures. II. The heteroazeotrope: acetone-water-carbon disulphide, A., 896.
- and Wardziński, E., ternary azeotropic systems. III. The heteroazeotrope ethylalcohol-water-carbon disulphide, A., 1111.
- Zmaczynski, A., Zlotowski, I., Usakiewicz, J., and Salcovicz, J., ice calorimeter to measure very small thermal effects, A., 925.
- Swift, E. H., and Barton, R. C., separation of common elements into groups. II. Separation by means of sodium hydroxide and sodium peroxide, A., 42.
- Barton, R. C., and Backurs, H. S., separation of common elements into groups. III. Separation of zinc, cobalt, nickel, and iron from aluminium, chromium, and manganese, A., 42.
- Swift, R. W. See Forbes, E. B.
- Swift & Co., preparation of shortening agents, (P.), B., 410.  
and Grettie, D. P., stabilising shortening [e.g., lard], (P.), B., 811.  
See also Christopher, E. F., Newton, R. C., and Paddock, J. S.
- Swindell & Bros., W. See Brooke, F. W.
- Swindell-Dressier Corporation. See Brooke, F. W., and Dressler, P. d'H.
- Swindells, E., modern wetting-out and scouring agents and their application to textiles, B., 425.
- Swindells, F. E., luminescence of alkaline-earth tungstates containing lead, A., 554.
- Swindin, N., use of rubber in the chemical industry, B., 79.
- Swinehart, C. F. See Booth, H. S.
- Swinehart, G. E., and Amer. Ore Reclamation Co., sintering machine, (P.), B., 631.
- Swingle, W. W., Piiffner, J. J., Vars, H. M., Bott, P. A., and Parkins, W. M., function of the adrenal cortical hormone and cause of death from adrenal insufficiency, A., 320.  
See also Parke, Davis & Co.
- Swings, P., identification of a certain number of lines observed in the spectra of the sun and of sunspots, A., 1220.  
and Migeotte, M., fluorescence of diatomic molecules of arsenic, A., 1221.
- Swinne, R., and Siemens & Halske A.-G., method of insulating bodies [for use in magnetic cores], (P.), B., 273.
- Swirles, (Miss) B., coefficients of absorption and opacity of a partly degenerate gas, A., 1101.
- Switalska, J. See Renzenbauer, H.
- Swoap, O. F., Cartland, G. F., and Hart, M. C., assay and deterioration of ergot preparations, B., 411.
- Sychra, N. A., chemical assay of nigrosines, B., 422.
- Sydnor, H., and Standard Oil Development Co., cracking of hydrocarbons, (P.), B., 455.
- Sykes, C. H., use of diphenylamine in determining small quantities of trinitrin [glyceryl trinitrate], B., 987.
- Sykes, F. H. See Fletcher & Co., Ltd., G.
- Sykes, J. F. See Taylor, N. B., and Weld, C. B.
- Sykes, P. H., and Robertson, P. W., activity coefficients of the nitrobenzoic acids [at 50°], A., 904.
- Sykes, T. T., fabric dyeing machines, (P.) B., 667.
- Sykes, W. P. See Brit. Thomson-Houston Co.
- Sylmans, C., determination of true dry substance of molasses, B., 361.
- Sylvania Industrial Corporation. See Neidich, S. A.
- Sylvanus, E. B. See Field, A. M.
- Sylvester, J., and Simplex Eng. Co., heating device for lehrs, (P.), B., 465.
- Sylvester, N. D. See Lampitt, L. H.
- Sym, E. A., action of esterase. III. and IV., A., 426, 981.
- Symington, S. See Woodall-Duckham (1920), Ltd.
- Symons, E. B., and Nordberg Manufg. Co., crushing apparatus, (P.), B., 415, 448, 944. Jaw crusher, (P.), B., 576.
- Symons, G. E. [with Binswell, A. M.], methane fermentation of carbohydrates, A., 752.
- Sytch, E. D. See Kiprianov, A. I.

- Szabo, A. See Bergmann, E.  
 Szabó, Z., determination of very small quantities of bromide, A., 41.  
 See also Náray-Szabó, S. von.  
 Szadeczky, E. von, crystallographic relations of methylglucoses, A., 14.  
 Száhlender, K., iodometric determination of substances forming oxalic acid and of methyl alcohol, A., 1314.  
 Szalay, A., destruction of highly polymerised molecules by ultrasonic waves, A., 578.  
 Szalkowski, C. R. See Beal, G. D.  
 Szankowski, W. See Pilat, S. von.  
 Szantroch, Z., intracellular fatty substances in various tissues cultivated *in vitro*, A., 83.  
 Szaryasy, E., and Lányi, B., transformation of diamond into graphite, A., 1128.  
 Szayna, A., catalytic hydrogenation of hydrocarbons and mineral oils, B., 51.  
 Szczeniowski, S., transition of electrons to the region of negative energy values, A., 658.  
 Sze, S. Y.,  $\beta$ -rays of active deposit of actinium, A., 4.  
 Zsebelleđy, L. [with Dörza, A.], separation and determination of strontium and barium as bromide, A., 137.  
 Szegfy, L., soluble protein in flours of various qualities, B., 167.  
 Szégo, E., automatic control of continuity of working in factories employing gases and liquids, B., 38.  
 Szegő, L., lead-chamber process [for sulphuric acid]. III., B., 463.  
 and Cassoni, B., colorimetric determination of iron, A., 1025.  
 and Lombardi, M., rate of absorption of nitrous gases by sulphuric acid. II., B., 188.  
 See also Cambi, L.  
 Szegő, P. See Newitt, D. M.  
 Szegvari, A. See Anode Rubber Co.  
 Széki, T. See Haraszti, J.  
 Szélényi, T. von, fluorine content of fossil bones, A., 296.  
 Szell, K., statistics of diatomic gases, A., 884.  
 Szent-Györgyi, A., vitamin-C, adrenaline, and adrenals, A., 100. Chemical and biological effects of ultra-sonic radiation, A., 359. Identification of vitamin-C, A., 433. Free energy of lactic acid oxidation; scale for biological oxidation-reduction potentials, A., 748. Ascorbic acid (vitamin-C), A., 987.  
 and Haworth, W. N., "hexuronic acid" (ascorbic acid) as the antiscorbutic factor, A., 196.  
 See also Banga, I., and Svirbely, J. L.  
 Szentmihályi, S. See Klein, N.  
 Szeszich, L. von, and Hupe, R., rôle of sulphur in destructive hydrogenation, B., 772.  
 Szigeth, G., purification of combustible gases from hydrogen sulphide, (P.), B., 51.  
 Szigeti, P., so-called negative adsorption and vapour-pressure isotherms with permutites and clays, A., 1113.  
 Szörényi, E. See Wohlgemuth, J.  
 Szongott, H. See Tomcsik, J.  
 Szper, J. See Centnerszwer, M.  
 Sztankay, A. von, reduction of the urine and blood-sugar by calcium metasilicate hydrogel, A., 302. Constitution of theobromine compounds, B., 445.  
 Szűts, A., photo-sensitising action of anilino dyes on staphylococci and streptococci, A., 1084.  
 Szukiewicz, W., action of the silent discharge on ethylene, A., 791.  
 Szymanowitz, R. See Acheson, Ltd., E. G.  
 Szyszka, G. See Slotta, K. H.
- T.
- Tabanelli, M., methods of increasing defensive power of the peritoneum: behaviour of the serous membrane with increased defences in the course of acute bacterial infections, A., 972.  
 Tabei, S. See Hishiyama, K.  
 Tabern, D. L., and Shelberg, E. F., physico-chemical properties and hypnotic action of substituted barbituric acids, A., 310.  
 Tabet, M. See Levi, G. R.  
 Taboury, M. F., and Echar, R., influence of the amount of impurity in gelatin on the density of Liesegang's rings; Jablczynski's relation, A., 225.  
 and Salvinien, periodic structures; Liesegang phenomenon, A., 224.  
 Tachei, F. See Stiasny, E.  
 Tachi, I., electrolytic reduction potentials of organic compounds. XVII. Dimethylaminoozobenzene, A., 1122.  
 See also Shikata, M.  
 Tachibana, S. See Kosugi, T.  
 Tacke, B., peat as a fertiliser and soil improver, B., 243.  
 Tada, H., rôle of augmented adrenaline secretion in dogs after guanidine on fluctuation of the blood-sugar concentration simultaneously occurring, A., 421. Effect of guanidine hydrochloride and synthalin on the blood-sugar of bilaterally adrenalectomised or splanchicotomy rabbits, A., 531. Action of pilocarpine and physostigmine on blood-sugar in normal, splanchicotomy, and adrenalectomised rabbits, A., 859.  
 Tados, F. See Schmid, L.  
 Täuber, E., camphor as preservative, B., 280.  
 Täufel, K., and Mayr, F., determination of citric acid by conversion into acetone, A., 807.  
 and Russow, F. K., autoxidative breakdown of fats. V. Behaviour of epihydrinaldehyde and its acetals, B., 753.  
 and Thaler, H., colour reaction of ketones, A., 54.  
 See also Fischler, F., and Peter, B.  
 Taffel, A., and Revis, C., rancidity of oils and fats, B., 1065.  
 Taft, R., theories of addition agent action [in electrodeposition of metals], B., 431.  
 and Malm, L. E., solvents for gum arabic. II., B., 78.  
 Tagееva, S. V., study of photosynthesis in connexion with photoperiodism, A., 196.  
 Tagg, R., substance or material [emulsion] for use in road-making, (P.), B., 347.  
 Taggart, M. S., and Richter, G. H., glyoxaline derivatives of barbituric acid, A., 515.  
 Tagliatieri, P. L., comparative production costs of secondary cast iron in the cupola and electric furnace, B., 1011.  
 Tagliani, G., printing of sulphur dyes on cotton, B., 303.  
 Taguchi, E. See Shikata, M.  
 Taguchi, K. See Kotake, M.  
 Taiana, J. A. See Canonico, A.  
 Taillandier, C., iron-chromium-aluminium alloys, B., 349.  
 Tainter, M. L., and Cutting, W. C., [pharmacological] actions of dinitrophenol, A., 1078.  
 Tainton, U. C., hydrometallurgical treatment of [lead-zinc] ores, (P.), B., 312. Recovery of metals from zinc-plant residue, (P.), B., 395.  
 Taira, T., fatty acids of fusel oil, B., 675. Unsaponifiable high-boiling substances in fusel oils, B., 1031.  
 Tait, A. See Ford, J. S.  
 Tait, G. M., and Knott, J. E., correcting the unproductiveness of acid and alkaline muck soils for the growing of vegetable crops, B., 982.  
 Tait, J. See Ashington Coal Co.  
 Tait, T. See Kendall, J.  
 Tajima, K. See Katsura, S.  
 Takabatake, Y. See Morii, M.  
 Takahashi, E., and Shirahama, K., agar-agar. III., A., 878.  
 Takahashi, H., enzymic dephosphorylation of nucleic acid, A., 426. Pyrophosphatase and its activator, A., 426.  
 Takahashi, I., embryochemical investigations with the injection method. VI. Behaviour of creatine or creatinine in the hen's egg on amino-acid injection, A., 976.  
 See also Iseki, T., and Kataoka, E.  
 Takahashi, Katsuo, nutritive value of types of phosphoric acids, A., 632.  
 Takahashi, Kenkich. See Kameyama, N.  
 Takahashi, S. See Pineussen, L.  
 Takahashi, T. See Karrer, P.  
 Takahashi, Teizo, carbohydrates of *Raphanus sativus* var. *macropodus*, A., 328. Determination of methylglyoxal, A., 698.  
 and Asai, T., fermentation products of *Actinomyces* sp. Saito, A., 189. Formation of fructose and kojic acid by acetic acid bacteria, A., 189, 1206. Gluconic acid fermentation. III. IV. *Bacterium hoshigaki* var. *glucuronicum* II and III nov. sp. V. *B. hoshigaki* var. *rosea mobilis saccharosum*. VII., A., 189, 537, 639, 1206. Production of fructose and kojic acid from mannitol by acetic acid bacteria. II. Effects of pH of culture solution and addition of calcium carbonate, A., 1206. Fermentation products of *Mucor*. III. Production of glycerol and effect of addition of NaHSO<sub>3</sub> and Na<sub>2</sub>CO<sub>3</sub>, A., 1333.  
 and Suzuki, A., *Bacillus saprogenes saké*, Takahashi, and the lactic acid bacteria which putrefy saké, A., 640.  
 Takahashi, W. See Saito, H.  
 Takamatsu, T., spectacle glasses, B., 465.  
 Takamatsu, Y., action of alkaline copper solutions on silk fibroin. II. and III., A., 1244.  
 Takamine, T., Suga, T., and Yanagihara, A., anode spot in a neon tube, A., 547. Influence of a magnetic field on a glow discharge, A., 1096.  
 Takané, K., X-ray analysis of idocrase from Miho, Japan, and the formula of the mineral, A., 483. Crystal structure of diaspore, A., 558.  
 See also Kôzu, S.  
 Takase, R. See Kato, Y.  
 Takase, Y. See Yoshimura, K.  
 Takashima, S. See Oshima, Yoshikiyo.

- Takata, *H.*, bile acids and carbohydrate metabolism. XXVII. Production from bile acids of glycogen in the livers of castrated and ovariectomized rabbits, A., 1193. Influence of bile acids on enzymic hydrolysis of lecithin, A., 1204.
- Takata, *S.* See Uchida, *S. O.*
- Takáts, *C. B.* See McClure, *W. B.*
- Takayama, *T.* See Tanaka, *Y.*
- Takayama, *Y.*, amino-acids and related compounds. I. Electrolytic oxidation of glutamic acid. II. Electrolytic oxidation of pyrrolidonecarboxylic acids. III. Electrolytic oxidation of arginine. IV. Electrolytic reactions of leucic acid. V. Electrolytic oxidation of tyrosine and phenylalanine. VI. Electrolytic oxidation of glyoxalylpropionic acid. VII. Oxidation of amino-acids, A., 681, 720, 940, 948, 957, 1127.
- Takayanagi, *Y.*, action of lymphagogues of the first class, A., 1078.
- Takeda, *K.* See Kon, *Y.*
- Takei, *B.*, X-ray examination of rice and potato starches, A., 452.
- Takei, *S.*, Miyajima, *S.*, and Ōno, *M.*, rotenone, the active component of the *Derris* root. X. Oxidation and reduction of rotenone in feebly alkaline solution, A., 512.
- Takei, *T.* See Katō, *Y.*
- Takenaka, *Y.*, manufacture of hydrogen from waste gas in hydrogenation of coal, B., 611.
- Takens, *A. J.* See Prins, *J. A.*
- Taketa, *T.* See Shibata, *F. L. E.*
- Taketomi, *N.*, and Horikosi, *T.*, reactivation of *kōji*-invertase, A., 314. Relation between amount of enzyme and its reaction velocity, A., 425. Velocity of inversion of sucrose. IV. (1) Relation between velocity of inversion and  $p_H$ . (2) Effect of neutral salts on velocity of inversion and  $p_H$ , A., 787.
- and Sakata, *S.*, drying agent which contains aluminium sulphate as principal constituent, A., 239.
- Takeuchi, *K.*, and Sahashi, *Y.*, physiologically active isomeride of Bredt's 5-ketocamphor, A., 1300.
- Takeuchi, *T.*, influence of organic compounds on urease, A., 535.
- Takizawa, *N.* See Hiki, *Y.*
- Takubo, *K.* See Goto, *K.*
- Takvorian, *S.* See Curie, *Maurice*.
- Talalay, *J.*, notch strength of rubber mixings, B., 838.
- Talalay, *N.* See Freundlich, *H.*
- Talanova, *H.*, muscle extractives. XXXII. Extractives of crucian flesh, A., 176.
- Talbot, *J. A.*, photographic base paper, B., 652.
- Talbot-Crosbie, *J. B.* See Stewart & Co., Ltd., *D.*
- Talbot, *J. H.*, and Michelsen, *J.*, heat cramps, A., 1070.
- Talbot, *P.*, and Weaver, *R.*, apparatus for accurate delivery of solutions used in experimental baking tests, B., 810.
- Talenti, *M.* See Castagna, *S.*
- Talley, *R. E.*, and Hagan Co., *G. J.*, continuous hardening, quenching, and drawing furnace, (P.), B., 833.
- Talley, *S. K.* See Jones, *G.*
- Talmud, *B. A.* See Bresler, *S. E.*, and Talmud, *D. L.*
- Talmud, *D. L.*, mechanism of the flotation process, A., 458. "Molecular solders" and their applications, A., 900.
- Talmud, *D. L.*, Talmud, *B. A.*, and Bresler, *S. E.*, linear phenomena. I. Linear wetting and linear adsorption; micellar weight and micellar dimensions of lyophilic colloids, A., 222.
- See also Bresler, *S. E.*
- Talvinski, *A.*, nickel sulphide at Grebni, Urals, A., 1031.
- Talvitie, *Y.* See Komppa, *G.*
- Tama, *G.*, and Ajax Electrothermic Corp., composition for smelting hearths, (P.), B., 674.
- Tamamushi, *B.*, significance of Freundlich's adsorption isotherm, A., 671.
- Tamchyna, *J. V.*, hydrotropy amongst inorganic salts, A., 1011.
- Tamhane, *V. A.*, and Krishna, *P. G.*, leaching of alkali soils at Sarkand-Sind with different calcium salts, B., 241.
- Tamisé, *L.*, new processes for manufacture of ammonium nitrate, B., 962.
- Tamisier, *A.*, complexes of silver and zinc with nitrogen bases, A., 578.
- See also Auméras, *M.*
- Tamm, *I.*, theory of photo-electric effect on metals, A., 1103.
- Tamm, *O.*, Swedish soils, A., 46.
- Tammann, *G.*, transformations in homogeneous substances, A., 115. Change of properties of non-metallic substances by working, A., 116. Classical dissociation theory, A., 123. Isothermal crystallisation or transformation of a given mass as a function of time, A., 1234. Recovery [of metals] from results of cold-work, B., 66.
- and Bandel, *G.*, change in thermal power during recovery of metals from cold work, A., 342. Photographic development of lines of slip in deformed silver chloride crystals, A., 1234. Use of the radioactive lead isotope, thorium-B, in the solution of metallographic problems, A., 1239. Rendering visible the primary structure of steels by addition of radioactive thorium-B, B., 230.
- and Boehme, *W.*, temperature of the beginning of grey glow radiation of metals, oxides, and sulphides, A., 992.
- and Caglioti, *V.*, recovery of electrical resistance and hardness of binary mixed crystals of iron after cold working, A., 455.
- and Dreyer, *K. L.*, recovery of electrical resistance and hardness of copper, silver, gold, platinum, and palladium after cold working, A., 338. Recovery of electrical resistance of binary mixed crystals of copper, silver, and gold, following cold working, A., 454. Shape and structure of lead shot, B., 551.
- and Moritz, *G.*, recovery of iron and nickel after cold working, A., 452. Influence of rate of cooling on structure of eutectics, A., 1238.
- Neubert, *F.*, and Boehme, *W.*, influence of cold-working on temperature of the beginning of grey glow heat, A., 117.
- and Rocha, *H. J.*, is ammonia evolved by freezing of seawater? A., 120. Change in magnetic induction under constant field strength during cold working and the recovery on heating, A., 559. Detection of small quantities of eutectic in metals by determination of the tensile strength at various temperatures, B., 710.
- See also Dreyer, *K. L.*
- Tams, *J. E.*, earthenware body for manufacture of pottery, (P.), B., 107.
- Tamura, *S.* See Ichihara, *K.*
- Tamura, *T.* See Ishida, *Y.*
- Tanabe, *T.*, stainless silver alloy, (P.), B., 794.
- Tanaka, *H.*, production of potassium sulphate, ammonium sulphate, and alumina from alunite, (P.), B., 60.
- Tanaka, *I.*, nutrition of higher plants with organic compounds, B., 563.
- Tanaka, *K.*, bile acid of bear's bile, A., 178. Influence of bile acids on autolysis of genital glands, A., 534. Sterols of rice embryo. I. and II., A., 987, 1217.
- and Tanaka, *Toshiyuki*, formation of bile acids. VI. Rice embryo and bile acid excretion, A., 1186.
- Tanaka, *R.*, dye sols. IV. Colour change of Congo acid sol on heating, A., 225.
- Tanaka, *S.*, acetic acid bacteria in Formosa. I., A., 536.
- Tanaka, *Tomoichiro*, sulphur soap, (P.), B., 556.
- Tanaka, *Toshiyuki*, bile acids and carbohydrate metabolism. XXIII. Influence of bile acids and of adrenalins on experimental glycocholia. XXVIII. Ergosterol glycocholia and the sympathetic nervous system, A., 419, 1194. Taurocholic acid, A., 1162.
- See also Shibuya, *S.*, and Tanaka, *Keizo*.
- Tanaka, *Y.*, and Kobayashi, *Ryōnosuke*, high-pressure hydrogenation of fatty oils. III. Production of active catalysts by reduction of mixed hydroxides of nickel and copper in liquid medium, B., 435.
- Kobayashi, *Ryōnosuke*, and Fukushima, *Y.*, high-pressure hydrogenation of fatty oils. IV. Production of solid unsaponifiable matters by means of pyrogenic hydrogenation of fatty acids. V. Production of solid unsaponifiable matters by high-temperature hydrogenation of fatty oils, B., 754.
- Kobayashi, *Ryōnosuke*, and Furumoto, *H.*, dechlorination products of chloroparaffins, B., 738.
- Kobayashi, *Ryōnosuke*, and Misono, *A.*, refining of hydrogenated lubricants, B., 773.
- Kobayashi, *Ryōnosuke*, and Takayama, *T.*, high-pressure hydrogenation of fatty oils. II. Production of active catalysts by reduction of mixed oxides of nickel and copper in medium of fatty oils, B., 274.
- Tananaev, *I.*, determination of fluorine in apatite, phosphorite, and superphosphate, A., 242. Volumetric determination of calcium fluoride, A., 244. Volumetric determination of calcium oxide in lime, B., 226.
- Tananaev, *N. A.*, and Michaltschischin, *G. T.*, spot method for approximate determination of platinum, A., 1134.
- and Savtschenko, *P. S.*, gravimetric determination of phosphate ion, and solubility product of magnesium ammonium phosphate, A., 687.
- and Vasilieva, *E. V.*, drop method of approximate determination of gold, A., 43.
- Tanase, *Y.* See Asahina, *Y.*

- Tanasescu, I., mechanism of formation of acridones by condensation of *o*-nitrobenzaldehydes with aromatic hydrocarbons. IV. Reply to Lehmstedt, A., 956.
- and Macarovici, (Mme.) M., mechanism of formation of acridones by condensation of *o*-nitrobenzaldehydes with aromatic hydrocarbons. III., A., 956.
- 2:4-Dinitrobenzophenone, A., 1051.
- and Macovski, E., photochemical reactions in the *o*-nitrobenzylideneacetal series. VI. Constitution of products of photochemical isomerisation of *o*-nitrobenzylideneacetal. VII. ( $\alpha\beta$ -*o*-Nitrobenzylideneglycerol, A., 275, 393.
- and Silberg, A., condensation of *o*-nitrobenzaldehyde with aniline, A., 275.
- Tanfani, L., volumetric determination of sulphur in viscose by means of benzidine hydrochloride, B., 459.
- Tang, C., effect of histamine on arterial oxygen-combining curve and on arterial oxygen pressure; action of histamine on the lung vessels, A., 90.
- Tang, F. F., late lactose-fermenting coliform bacilli in dysentery, A., 739.
- Tang, P., and Gerard, R. W., oxygen tension-oxygen consumption curves of fertilised arbacia eggs, A., 87.
- Tang, T. Y., analysis of oils; application to Chinese edible oils, B., 114.
- Tange, U., fatty acids in nutrition. I. II. Diets composed of rice, oil, and lipin containing linoleic or linolenic acid, A., 183, 1325.
- Tangerding, W. See Hanemann, H.
- Tani, I. See Fujimaki, Y.
- Taniguchi, K., alloy chilled-iron rolls, B., 469.
- Taniguchi, M. See Sakurada, I.
- Taniguchi, T. See Iwakura, N.
- Tanimura, H., and Wassermann, G., system beryllium-copper, A., 1007.
- Tankard, A. R., composition of potted meat and fish, B., 810.
- Tanneberger, H., vapour-pressure curve of diacetylene [butadi-1,3], A., 485.
- Tanner, F. W., and Evans, F. L., effect of meat-curing solutions on anaerobic bacteria. I. Sodium chloride, A., 753.
- Tanner, H. G., unusual crystal growth, A., 19.
- Tanner, R. R., Darsey, V. M., and Parker Rust Proof Co., coated metal article; [rust-proof coating for iron, zinc, and their alloys], (P.), B., 794.
- See also Thompson, John S.
- Tanner, W. L., and Nat. Chem. & Manufg. Co., cellulose phosphates, (P.), B., 911.
- Tantzov, N. V., industrial utilisation of chlorine as sulphuryl chloride, B., 463.
- Tao, S. C. See Kwei, C. T.
- Tapia, E. See Ribas, I.
- Tapie, J. F., and Hammond, G. F., [chlorination] treatment of ore, B., 394.
- Apparatus for [chlorination] treatment of ore, (P.), B., 633.
- See also Taylor, J. L.
- Taplin, T. J., and Minerals Separation, Ltd., heat-treatment and concentration of ores [*e.g.*, oxidised copper ores], (P.), B., 472.
- Tapp, J. S., Steacie, E. W. R., and Maass, O., density of a vapour in equilibrium with a liquid near the critical temperature, A., 1237.
- Tapnell, H. J., creep of steels, B., 230.
- Tar & Petroleum Process Co. See Knowles, A. S.
- Tarajan, W. M. See Galfajan, G. T.
- Tarasov, G. J., and Izotova, A. S., reduction of sodium sulphate in briquettes, B., 962.
- Tarassov, B. K., Kaluga crude oil, B., 210.
- and Seledzhiev, G. N., cracking of heavy ends left after distillation of [hydrocarbon oil] pressure distillate, B., 691.
- See also Sachanov, A.
- Tarbuton, G., and Vosburgh, W. C., system lead acetate, acetic acid, water, A., 126.
- Lead-mercurous acetate voltaic cell with acetic acid as solvent, A., 354.
- Targońska, J. See Przylecki, S. J. von.
- Tark, M. B., and Link-Belt Co., settling system for separating solids from fluids, (P.), B., 370.
- Tarnutzer, C. A. See Werkman, C. H.
- Tarr, H. L. A., respiratory catalysts in spores and vegetative cells of aerobic bacilli, A., 639.
- Anaerobic decomposition of L-cystine by *Proteus vulgaris*, A., 866.
- Tarr, L., transient methemoglobinemia due to ammonium nitrate, A., 312.
- Tarr, L. W. See Hollingworth, D. W.
- Tarrant, A. N. See Woodall-Duckham (1920), Ltd.
- Tartar, H. V., Bryan, C. C., and Shinn, H., influence of adsorbed ions on the solution of colloidal aluminium hydroxide in hydrochloric acid, A., 778.
- Tartarini, G., microchemical reactions for detecting molybdenum and tungsten, A., 1263.
- Colour reactions of cuprous salts, A., 1263.
- and Samaja, T., separation and purification of organic bases by means of metalamines. I. *o*-Phenanthroline. II. Pyridine,  $\alpha$ -picoline, and isoquinoline, A., 1059.
- Tarugi, N., "chloride of lime," A., 239.
- Tasman, A., determination [in fermentation liquors] of lactic acid in presence of succinic acid, B., 89.
- Tatman, E. C. See Stone, W. E.
- Tatsuki, K., and Minami, S., properties of rayons manufactured in Japan. III. Chemical properties, B., 423.
- Viscose silk and direct colours; effects of addition of penetrant, B., 424.
- Tatsumi, Y., Ikebe, T., Okazaki, K., and Mitsui Mining Co., pure aluminium oxide, (P.), B., 105.
- Tatu, H., aluminium apparatus in bleaching [textiles] with hydrogen peroxide, B., 832.
- Tatum, E. L., and Petersen, W. H., stimulating effect of potato extract on butyric acid bacteria, A., 639.
- Taub, A., permanent colour standards for U.S.P. cod-liver oil, almond oil, and castor oil, B., 513.
- Taube, G., Brodie, I. B., Musher, S., and Rubin, B. M., [cellulose] products from corn-stalks, sugar cane, and similar vegetable material, (P.), B., 301.
- Taubenhaus, M., action of parathormone on blood-calcium, phosphorus, and -protein, A., 1336.
- Tauber, H., nature of emulsin, rennin, and pepsin, A., 314.
- and Kleiner, I. S., determination of monosaccharides in presence of disaccharides and its application to blood analysis, A., 295.
- Digestion and inactivation of maltase by trypsin and the specificity of maltase, A., 749.
- Milk-coagulating enzymes of gastric mucosa and their zymogens, A., 1203.
- See also Kleiner, I. S.
- Tauber, M., catalysed hydrogenation of ethylene, A., 33.
- Platinum catalyst, A., 1253.
- Taubmann, A., interfacial activity and orientation of polar molecules. IX. Applicability of Antonov's rule, especially to adsorption layers, A., 222.
- Tauböck, K. See Klein, Gustav.
- Täufel, K. See Sampietro, C.
- Tauffer, J., Karakoz, A., and Koláček, S., effect of work in harness on the secretion and composition of cow's milk, A., 83.
- Tauschanoff, W. See Krumbholz, G.
- Tausz, J., and Mellner, H., viscosity of thinned and unthinned oils from  $-30^{\circ}$  to  $50^{\circ}$ , B., 453.
- and Rabl, A., molecular viscosities, A., 770.
- Dilution, viscosity, and lubricating power, B., 8.
- Viscosity-dilution function of lubricating oils, B., 692.
- Tavasci, B., hydrolytic decomposition of tricalcium silicate, A., 1246.
- Tavaststerna, N. See Remesov, J.
- Taveira, M., chemical assay of toxicity of wines, B., 487.
- and Alves Filho, J. E., bromatological chemistry of fresh and preserved animal and vegetable products, B., 844.
- See also De Mello, J. B.
- Taxner, K., determination of dry matter in tomato pulp, B., 204.
- Taylor, A. L., process retort, (P.), B., 575.
- Taylor, A. M., and Durfee, (Miss) D. A., refractive index. III., A., 1001.
- and Glover, A. M., refractive index. I. and II., A., 765.
- and King, Allen, double refraction of oriented surface layers, A., 889.
- Refractive index. IV., A., 1104.
- Taylor, B. S., and Goodrich Co., B. F., oil-resisting rubber articles, (P.), B., 722.
- Coloured rubber product and colouring of rubber, (P.), B., 930.
- Taylor, C. V. See Brown, M. G.
- Taylor, E. A., and Krebs Pigment & Color Corp., lithopone with high zinc sulphide content, (P.), B., 276.
- See also Grasselli Chem. Co.
- Taylor, E. M. See Moloney, P. J.
- Taylor, E. R., Smith, H. B., and Eastman Kodak Co., recovery of cellulosic derivative scrap, (P.), B., 1004.
- Taylor, F. See Wright, L.
- Taylor, F. H. L. See Myers, W. K.
- Taylor, F. M. See Fish, F. H.
- Taylor, F. M. H. See Kenyon, J.
- Taylor, F. T., Bullard-Dunn process of cleaning (metals), B., 67.
- Taylor, G. F. See Brit. Thomson-Houston Co.
- Taylor, G. W., effects of hormones and other substances on cell (luminous bacteria) respiration, A., 96.
- Taylor, H. See Robson, J. M.
- Taylor, H. A. See Trenner, N. R.
- Taylor, H. J. See Thompson, T. G.
- Taylor, H. M., and Mott, N. F., internal conversion of  $\gamma$ -rays. I. and II., A., 111, 1224.
- Taylor, H. S., Caley, E. R., and Eyring, H., solubility of salts in  $H_2O$ , A., 1240.
- and Diamond, H., para-hydrogen conversion at paramagnetic surfaces, A., 788.
- Eyring, H., and Sherman, A., binding energies in growth of crystal nuclei from metallic atoms, A., 213.



- Taylor, H. S., and Gould, A. J., Haber-Willstätter chain mechanism of organic and enzymic processes, A., 359. Interaction of ethyl alcohol and oxygen photo-sensitised by hydrogen peroxide; Haber-Willstätter mechanism of enzyme reactions, A., 473.
- and Salley, D. J., temperature coefficient of the photosensitised hydrogen-oxygen reaction, A., 236.
- See also Du Pont de Nemours & Co., E. I., and Lavin, G. I.
- Taylor, I. R., and Birnie, J. H., microvessel for glass electrode determinations of hydrogen-ion activity of biological fluids, A., 1094.
- Taylor, J., Penman, F., Marshall, T. J., and Leeper, G. W., soil survey of the Nyah, Tresco, Tresco West, Kangaroo Lake (Vic.), and Goodnight (N.S.W.) settlements, A., 693.
- Taylor, J. B., and Langmuir, I., evaporation of atoms, ions, and electrons from caesium films on tungsten, A., 1098.
- See also Langmuir, I.
- Taylor, J. E., and Whiddington, R., absolute probability of excitation of helium  $2^1P$  at zero angle, A., 547. Excitation probabilities of helium, argon, and neon at zero scattering angle, A., 1095.
- See also Whiddington, R.
- Taylor, J. L., and Tapie, J. F., retort for mineral oils, (P.), B., 614.
- Taylor, J. M., and Continental Diamond Fibre Co., synthetic resin coating material, (P.), B., 31.
- Taylor, K. F. See Campbell, W. G.
- Taylor, L. D., and Mathieson Alkali Works, bleaching of [vegetable and animal] oils [and fats], (P.), B., 477. Chemical manufacture [of drying oils], (P.), B., 477.
- Taylor, L. S., and Stoneburner, C. F., measurement of low-voltage X-ray intensities, A., 366.
- Taylor, L. V., jun., use of a selenium-mercuric oxide combination in determination of nitrogen in feed materials, B., 764.
- Taylor, M. C., and Mathieson Alkali Works, detergent composition, (P.), B., 927.
- White, J. F., and Mathieson Alkali Works, wood pulp, (P.), B., 960.
- Taylor, M. E. See O'Hara, F. J.
- Taylor, M. W. See Russell, W. C.
- Taylor, N. B., and Weld, C. B., effect of irradiated ergosterol on the absorption of calcium, A., 326. Effect of small (therapeutic) doses of irradiated ergosterol on the serum-calcium, A., 326.
- Weld, C. B., and Sykes, J. F., administration of irradiated ergosterol to dogs with biliary fistulae, A., 326.
- Taylor, N. H., soil processes in volcanic ash-beds; ash-beds of northern King-country and their secondary alumina materials. I. and II., A., 589, 1031. Design and testing of asphalt paving mixtures, B., 135. Reconditioning asphalt paving materials, (P.), B., 671.
- Taylor, N. M. See Creighton, M.
- Taylor, R. A. A., catalysts for hydrogenation of organic materials, (P.), B., 547.
- Taylor, R. J. See Lutz, R. E.
- Taylor, R. L. See Ingmanson, J. H.
- Taylor, T. C., and Knoll, A. F., action of alkali xanthates on galena, B., 871.
- and Salzmann, G. M., action of aqueous alkali on starches, amyloses, and modified starches, A., 261.
- Taylor, T. C., and Schoch, T. J., potato starch, A., 1279.
- and Sherman, R. T., carbohydrate-fatty acid linkings in maize  $\alpha$ -amylase, A., 261.
- Taylor, T. I., influence of small amounts of dissolved silicates on the conductance of conductivity water and very dilute solutions of electrolytes, A., 907.
- and Cone, W. H., preparation and properties of silver sols by reduction of silver halides with formaldehyde, A., 1115.
- Taylor, T. W. J., and Sutton, L. E., configurations of the aldoheximes, from measurements of electric dipole moment, A., 275.
- Taylor, W. F., and Blair, W. M., determination of blood-urea-nitrogen by direct nesslerisation, A., 733.
- Taylor, W. H., structure of sanidine and other feldspars, A., 892. Physical chemistry of alumina-silica refractories. II. Structure of sillimanite and related materials, A., 1235.
- and Jackson, R., structure of edingtonite, A., 1004.
- Meek, C. A., and Jackson, W. W., structure of fibrous zeolites, A., 451.
- Taylor, Wendell H. See Dougherty, G.
- Taylor, W. I. See Brit. Celanese.
- Tohakirian, A., preparation of germanous iodide and action of silver nitrate on halogen derivatives of methane, A., 579.
- Tehung, W. W. See Sandulesco, G.
- Tears, C. F., and Universal Oil Products Co., treating [converting] petroleum oil, (P.), B., 539.
- Teatini, D., theory and control of crystallisation [in sugar factories], B., 202. Purification of sugar-factory and refinery juices, (P.), B., 888.
- Teats, R., and Amer. Smelting & Refining Co., separation of metals, (P.), B., 592. Extraction and separation of cadmium [from flue dusts], (P.), B., 592.
- See also Hughes, S.
- Tebyrlica, J. W., means for treating [macerated] fibrous materials [e.g., bark-containing fibres] in preparation for spinning, (P.), B., 265.
- Techner, F. See Thomas, K.
- Technicolor Motion Picture Corporation, and Ball, J. A., multicolour photography, (P.), B., 45.
- and Troland, L. T., differential treatment of photographic images in different depths of an emulsion, (P.), B., 45.
- Light-sensitive films, (P.), B., 205.
- See also Troland, L. T.
- Technidyne Corporation. See Flanzer, J. A., and Jones, L. L.
- Technimet Co. See Marshall, L. H.
- Teegan, J. A. C., amplification of the ionisation produced by radioactive sources, A., 334.
- Teeples, C. P., and Crane Packing Co., lubricant [for gasoline pumps, etc.], (P.), B., 138.
- Teeters, W. O., and Shriner, R. L., preparation of ninhydrin (triketohydrindene hydrate), A., 953.
- Teetor, R. J., heat-treatment [e.g., of malleable iron castings], (P.), B., 129.
- Teetsow, W. H., milk evaporator, (P.), B., 683.
- Teichman, H. von, blood-sugar content as an index of condition of cattle, A., 623.
- Teichmann, H., theory of crystal-photo-effect, A., 209, 447.
- Teige, K. See Vlček, A.
- Teik, G. L. See Georgi, C. D. V.
- Teillard-Chambon, M. See Wittouck, S.
- Teitel-Bernard, A. See Popper, M.
- Teitelbaum, M. See Grimmer, W.
- Telang, D. M., blood in tuberculosis, A., 1072.
- Telefunken Gesellschaft für drahtlose Telegraphie m.b.H., [cold cathodes for] thermionic valves and similar electric-discharge devices, (P.), B., 197.
- See also Schröter, F.
- Telegraph Construction & Maintenance Co., Ltd. See Smith, W. S.
- Telephon-Apparat-Fabrik E. Zweitsch & Co., G.m.b.H., electrolytic condensers, (P.), B., 113.
- Teletov, I. S., Faraschjan, S. P., and Najman, F. V., superphosphate from mixtures of high-grade Podolian phosphorites or Chibin apatite concentrates and Ukrainian low-grade phosphorites, B., 305.
- and Velesheinetz, A. D. [with Gurevitch, S. M., Dmitrenko, G. I., and Rogatscheva, I. A.], preparation of ammonium sulphate from gypsum by the action of ammonium carbonate solution, B., 304.
- Telkes, M. See Crile, G.
- Tellegen, F. See Böeseken, J.
- Teller, E. See Bartholomé, E., Herzberg, G., and Placzek, G.
- Teller, G. L., and Teller, W. K., proteins of wheat bran, B., 167.
- Teller, W. K. See Teller, G. L.
- Temerin, S. See Proskuriakov, N.
- Temesváry, G., nitrogen metabolism in skin diseases, A., 181.
- Tempany, H. A., Malayan soils. I. Introduction, A., 1138.
- Temple, F., electric storage batteries or accumulators [for motor vehicles], (P.), B., 1064.
- Templeton, H. L., and Sommer, H. H., whipping cream, B., 985.
- Templin, V. M., and Steenbock, H., vitamin-D and the conservation of calcium in the adult. II. Vitamin-D and calcium conservation in adult rats fed on low calcium diets. III. Vitamin-D and the teeth of rats, A., 542.
- Tendeloo, H. J. C., formation and structure of adsorption complexes, A., 458.
- Tenenbaum, D. See Koelsch, C. F.
- Tennent, A. H., and Oil Conservation Eng. Co., distilling apparatus for use in reclaiming oils, (P.), B., 456.
- Tennessee Copper & Chemical Corporation. See McKee, R. H.
- Tennessee Products Corporation. See Carlin, J. C.
- Tenney, F. L., and Allis-Chalmers Mannfg. Co., carbonisation device, (P.), B., 692.
- Teorell, T. See Norberg, B.
- Teplow, J., and Dobrokhotova, E. A., effect of some forms of radiant energy on distribution of colloids in the organism, A., 1200.
- and Mescheritskaja, R., changes in blood metabolism under quartz lamp irradiation, A., 424.
- Teppema, J., vulcanisation accelerator, (P.), B., 240.
- Terbrüggen, A., and Heinlein, H., hypoglycæmia after X-irradiation of the pancreas, A., 424.
- Terebesi, L. See Treadwell, W. D.
- Terenteva, K. F., mineral composition of the skeletons of recent *Echinodermata*, A., 968.

- Terentiev, A., and Chernin, S., preparation of *p*-hydroxyphenylaminoacetic acid, A., 1046.
- Ternes, O. A., experiences of silica in a continuous vortical [carbonising] plant, B., 209.
- Ternstedt Manufacturing Co. See McCullough, J. F. K.
- Terpstra, P. See Backer, H. J.
- Terpugov, A. V. See Voitkevich, I. I.
- Terpugov, F. I., electrochemistry of ethereal solutions. VIII. Arsenic trichloride-ethyl ether, A., 354.
- Terpugov, J., analysis of lubricating oil, B., 454.
- Terres, E., and Reinecke, O. [with Krüpe], microscopical investigation of coking, B., 133.
- and Wesemann, H., equilibrium constants of the component reactions in the decomposition of hydrogen sulphide by steam in the interval 350—900°, A., 277.
- Terret, H. G., heating apparatus employing catalytic [combustion] reactions, (P.), B., 2.
- Terroine, E. F., and Boy, G., distinctive characters of specific minimum nitrogen output and of exogenous protein metabolism, A., 1194.
- Boy, G., Champagne, M., and Mourot, (Mlle.) G., partition of nitrogenous constituents of urine and its physiological significance. II., A., 418.
- and Champagne, M., partition of nitrogenous constituents of urine and its physiological significance. IV., A., 529.
- Champagne, M., and Mourot, (Mlle.) G., partition of nitrogenous constituents of urine and its physiological significance. III., A., 529.
- Mezincesco, P., and Valla, (Mlle.) S., covering of nitrogen and sulphur balances by cystine at the level of endogenous protein metabolism, A., 418.
- and Mourot, (Mlle.) G., formation of purines from proteins in endogenous nitrogen metabolism, A., 309.
- and Valla, (Mlle.) S., comparative value of various protein foodstuffs for growth, A., 309.
- and Wurmser, R., energy of growth of *Aspergillus niger*, A., 96.
- Terroux, F. R., and Watson, W. H., detection of small leaks in high-vacuum apparatus, A., 801.
- Terry, A. G. See Colas Products, Ltd.
- Terry, J. T., electric arc furnace, (P.), B., 835.
- Tertsch, H., cohesion. IV. Cleavability of galena, A., 452.
- Terui, Y. See Ishikawa, F.
- Terwen, A. J. L., determination of blood-sugar, A., 82.
- Terziev, G. N., and Solvay Process Co., treatment of [removal of ammonia from] brine, (P.), B., 427.
- Teske, W. See Sauerwald, F.
- Testa, J., determination of benzoic acid in Argentine wines, B., 328.
- Testoni, P., thallium. V. Behaviour in the organism, A., 1328.
- Tête, H. See Leulier, A.
- Teterin, V. K. See Salkind, J. S.
- Tetmajer, B. von, concentration of acetic acid, B., 953.
- Tetsumoto, S., sterilising action of acids. I. Mineral acids. II. Saturated monobasic fatty acids. I., A., 1084, 1334.
- Tettamanzi, A., solubility of potassium and sodium ferrocyanides in aqueous solutions of ammonia, A., 1240.
- and Carli, B., compounds of trihydroxytriethylamino with metallic salts, A., 1280.
- See also Barbieri, G. A., and Garelli, F.
- Teuffert, W. See Braun, J. von.
- Teunissen, H. P., endocrinology; chemistry of hormones. II., A., 1208.
- Teves, M. C. See De Boer, J. H.
- Tewes, G. See Dyckerhoff, H.
- Texaco Development Corporation, conversion of hydrocarbon oils, (P.), B., 852.
- Texaco Salt Products Co. See Martin, O. V.
- Texas Co. See Behimer, O., Chebotarev, L. P., Cook, L. W., Dearborn, R. J., De Florez, L., Ebaugh, F. W., Fairbairn, G. C., Gallswothy, B., Gardner, E. W., Gee, W. P., Grahame, J. H., Gray, G. W., Hall, F. W., Manley, B. E., Merchant, P. W., Moore, N. H., and Watson, Claude W.
- Texas Gulf Sulphur Co. See Kobbé, W. H.
- Texier, D. A. L. See Manuf. des Machines Auxiliaires pour l'Electricité et l'Industrie.
- Textile Machine Works. See Janssen, H.
- Textile Machinery Corporation. See Goldthwait, C. F.
- Textilwerk Horn A.-G. See Weberei Ebnat A.-G.
- Težak, B., occlusion by precipitates, A., 364.
- Thacker, E. A. See Reed, C. I.
- Thackwell, H. L., operating Dunbar sewage filters, B., 125.
- Thaddea, S., and Waly, A., mechanism of the action of posterior pituitary hormone on carbohydrate metabolism, A., 1337.
- Thaler, E., and Clara-Fabrikate Cloetta & Co. m.b.H., respiratory filters, (P.), B., 174.
- Thaler, H. See Peter, B., and Täufel, K.
- Thamann, F. See Kehoe, R. A.
- Thamm, S. See Freund, M.
- Than, F., determination of gelatin content of different kinds of flesh, A., 1184.
- Thanheiser, G. See Bardenheuer, P., and Dickens, P.
- Thanhoffer, L. von. See Farkas, G.
- Thannhauser, S. J., chemical rôle of normal liver in intermediary metabolism, A., 418.
- and Fuld, H., diabetic coma refractory towards insulin, A., 1189.
- See also Fränkel, E., and Klein, W.
- Tharrer, K. See Späth, E.
- Thatcher, R. W., new aspects of plant nutrition, A., 101.
- Thatte, V. N., laboratory modification of the Pulfrich refractometer, A., 585.
- and Ganesan, A. S., Raman effect in organic sulphides and thio-compounds, A., 209.
- See also Ganesan, A. S.
- Thau, A., modern methods of recovery and purification of motor spirit, B., 136.
- Thayer, S. A. See MacCormac, D. W.
- Thaysen, A. C., treatment of cellulose fibres and fabrics, (P.), B., 1054.
- See also Morgan, W. T. J.
- Theilacker, W., dipole moment of hydrogen peroxide, A., 338.
- Theis, E. R., and Goetz, A. W., pickling [of hides]. III. Effect on time and temperature. IV. Effect on chromo-tanning, B., 117, 481.
- Goetz, A. W., and Snyder, R. G., conductivity titrations of basic chromium sulphate solutions, B., 505.
- Theis, E. R., and Graham, J. M., analysis of sulphonated oils, B., 354.
- Theiss, H. W., metal-coating [of iron or steel articles], (P.), B., 511.
- Thelen, P., blood-sugar regulation by reflexes from the sinus caroticus, A., 734.
- Thellier, (Mme.) O., null method of measuring electrical conductivity of the atmosphere, A., 801.
- Theobald, G. W., incidence of albumin and sugar in the urine of normal women, A., 300.
- Theobald, W. M., dry-cleaning or dyeing of fabrics, etc., (P.), B., 863.
- Therault, E. J., Butterfield, C. T., and McNamee, P. D., catalysis of air oxidations by iron salts, phosphates, and pyrophosphates, A., 680.
- Therkelsen, E., properties of the alloys of nickel with tantalum, B., 791.
- Thermal Syndicate, Ltd., and Moore, Burrows, filtering, (P.), B., 656.
- Thermatomic Carbon Co. See Miller, C., and Spear, E. B.
- Thermophor Manufacturing Co., Inc. See Bell, T. P.
- Theumann, M. J. See Du Pont de Nemours & Co., E. I.
- Thewis, J., determination of crystal orientation, A., 450.
- Thews, E. R., metallurgical considerations in preparation of nickel-silver castings, B., 66.
- Deoxidation of red brass by phosphorus, B., 151.
- New aluminium alloys, B., 710.
- and Harbison, R. W., palladium in the noble metal industry, B., 152.
- See also Snelling, R. J.
- Theyerl, A. See Graf, R.
- Thibaud, J., electrostatic deviation and specific charge of positive electron, A., 993.
- Electrostatic deflexion of positive electrons, A., 1098.
- Thiel, A., absolute colorimetry with grey solutions, A., 689.
- Origin and development of absolute colorimetry by means of grey solutions, A., 1134.
- and Coeh, G., indicators. XIX. Existence and significance of the "hydrogen effect," A., 29.
- and Diehl, E., use of colorimeter for absolute colour measurement (spectrophotometry), A., 139.
- Thiel, H. See Ohle, H.
- Thiel, H. W. See Clauberg, C.
- Thiele, E. W., and Geddes, R. L., computation of distillation apparatus for hydrocarbon mixtures, B., 374.
- and Kay, W. B., densities of hydrocarbon mixtures, A., 1006.
- and Standard Oil Co., coking of coal, (P.), B., 995.
- Apparatus for carbonisation of coal, (P.), B., 995.
- Thielemann, A., new electrolytic element, A., 1247.
- Thielepape, E. [with Fulde, A.], ester syntheses. I. Rational preparation of esters, A., 1274.
- Thielmann, (Miss) A., coating compositions, (P.), B., 31.
- Corrosion-resistant coatings on metal articles, (P.), B., 972.
- Thieme, C. O. See Romanoff, W.
- Thieme, J. G., supersaturation in graining [in cane-sugar factories], B., 485.
- Thiery, L., malleable cast iron containing nickel or nickel and chromium, B., 869.
- Thies, F., production of soft fabric, etc., from vegetable fibrous materials, (P.), B., 781.

- Thiessen, G. W., and Wertz, J. E., air pressure for blast lamps, A., 690.
- Thiessen, P. A., and Ehrlich, E., structural changes in crystalline salts of long-chain fatty acids at m.p. of parent substances, A., 116. New type of transformation in alkali salts of higher fatty acids, A., 1004. Effect of genotypism on properties of colloidal dispersions of fatty acid salts, A., 1011. and Heumann, J., comparison of the intermetallic compound  $\text{AuCd}_3$  obtained from the melt and from solution, A., 239.
- Thiessen, R., physical structure of coal, cellulose fibre, and wood as shown by the Spierer lens, A., 216.
- Thijssen, W. J. See Coster, D.
- Thilo, E., silicates. I. and II., A., 794.
- Thimann, K. V., and Bonner, J., growth hormone of plants. II. Entry of growth substance into the plant, A., 327. Mechanism of action of growth substance of plants, A., 757.
- and Dolk, H. E., conditions governing production of the plant-growth hormone by *Rhizopus* cultures, A., 752.
- and Skoog, F., growth hormone of plants. III. Inhibiting action on bud development, A., 1094.
- See also Borsook, H.
- Thivolle, L. See Fontès, G.
- Thoday, D., and Evans, H., growth and differentiation. III. Distribution of calcium and phosphate in tissues of *Kleinhia articulata* and some other plants. IV. Distribution of some solutes in the tissues of *Kleinhia articulata*, A., 102, 437.
- Thode, H. G., and Grubb, A. C., formation of ozone in alternating-current corona discharge with tubes coated with paraffin, stearic acid, and platinum, A., 914.
- Thoenes, D. See Nellensteyn, F. J.
- Thoenes, E., metabolism of the fatty liver. II. Formation and utilisation of lactic acid, A., 415.
- See also Meier, R.
- Thönnessen, C. See Cohen, E.
- Thom, C., and Raper, K. B., arsenic fungi of Gosio, A., 189.
- and Smith, N. R., relation of soil acidity to decomposition of organic residues, B., 882.
- Thomann, G. See Ruzicka, L.
- Thomas, coefficient of swelling of nitrocellulose in mixtures of ether, alcohol, and water, B., 572.
- See also Lacape.
- Thomas, A. See Lesure, A.
- Thomas, A. H., new conception of colloidal [aluminium] oxides, A., 225.
- Thomas, A. H. R., activated carbon [treatment of water supplies] at New Toronto [Ont.], B., 606.
- Thomas, A. W., and Bailey, M. I., gelation of frozen egg magma, B., 650.
- Thomas, B., and Elliott, F. J., yields and composition of pasture grasses from the Tree Field plots at Cockle Park, B., 36.
- Thomas, B. D., and Thompson, T. G., lithium in sea-water, A., 927.
- Thomas, C. A., and Carmody, W. H., polymerisation of diolefins with olefins. II. Function of  $\Delta^8$ -pentene in the polymerisation of isoprene, A., 1138.
- Thomas, C. D., and Dufford, R. T., efficiency of the chemiluminescence accompanying oxidation of Grignard compounds, A., 886.
- Thomas, C. L. See Hurd, C. D.
- Thomas, C. W., Allen, V. W., and Revere Copper & Brass, Inc., [copper-zinc] alloy, (P.), B., 111.
- Thomas, H. See Heiduschka, A.
- Thomas, Henry, and Sun Oil Co., oil cracking apparatus, (P.), B., 295.
- Thomas, H. A., oxycellulose and hydrocellulose: their detection, properties, and probable differences in constitution, B., 380.
- Thomas, H. C. See Crockford, H. D.
- Thomas, H. E., and Bruner, F. H., chronic radium poisoning in rats, A., 1079.
- Thomas, H. W., jun., reclaiming [new] scrap [habbitt] metal, (P.), B., 714.
- Thomas, I. See Petherbridge, F. R.
- Thomas, Jacques, interference of non-glucosidic substances, particularly lactic acid, on the measurement of optical rotatory power of blood-sugar, A., 295. Effect of insulin on optical properties of blood-glucose, A., 1085. and Bigwood, E. J., action of hydrocyanic acid on optical properties of blood-sugar, A., 410.
- Thomas, John. See Thorpe, J. F.
- Thomas, J. E., sulphuring of apricots, B., 165.
- Thomas, J. S. See Baxter, G. P.
- Thomas, K., Milhorat, A. T., and Techner, F., origin of creatine. VII., A., 418.
- Thomas, L. N. See King, R. H.
- Thomas, M. See Polonovsky, Michel.
- Thomas, Meirion, and Fidler, J. C., zymasis. VI. Zymasis by apples in relation to oxygen concentration, A., 1341.
- Thomas, M. D., precise automatic apparatus for continuous determination of carbon dioxide in air, B., 574.
- See also Hill, G. R., jun.
- Thomas, P., and Gradinescu, A., diuretic action and elimination of intravenously injected pentoses, A., 1074.
- and Kalman, (Mlle.) C., effect of different sugars on reaction of borate solutions, A., 781. Effect of sugars on  $p_H$  of sodium molybdate solutions, A., 909.
- Thomas, P. E. See Fosse, R.
- Thomas, P. H., and Raphael, T. D., red spider control, B., 566.
- Thomas, R. C., control of fire blight by treatment of cankers, B., 202. Phenol coefficient study involving bacterial plant pathogens, B., 646.
- Thomas, R. G., distribution of calcium between blood-plasma and erythrocytes, A., 965.
- See also Lines, E. W. L.
- Thomas, R. M. See Winning, C.
- Thomas, R. P. See Schueller, J. E.
- Thomas, R. W., Oberfell, G. G., and Phillips Petroleum Co., dehydration of air, etc., and gaseous mixtures, (P.), B., 770.
- and Phillips Petroleum Co., dehydration or cooling of air or other gases, (P.), B., 770.
- Thomas, S. B. See Ferry, J. D., and Hickson, P. M.
- Thomas, T. P. See Westinghouse Electric & Manufg. Co.
- Thomas, W. See Sidgwick, N. V.
- Thomas, W. M., Jones, T. D., and Graham, J. I., spontaneous combustion in western area of South Wales coalfield, B., 736.
- Thomas, W. R., and Evans, E. J., Hall effect and other physical constants of alloys. I. Lead-bismuth alloys, A., 895.
- Thomassen, L., and McCready, D. W., X-ray investigations of the penetration of electrolytes into wood, (P.), B., 1001.
- Thomis, G. N., photometric determination of small quantities of adrenaline, A., 1336. Alkali-acidimetric method of determining potassium guaiacolsulphonate in "thiocol" syrups, B., 171.
- Thomlinson, J. See Fisher, E. A.
- Thompson, C. D. See Lehman, M. R.
- Thompson, D. See Kohler, E. P.
- Thompson, E. H. See Reynard, O.
- Thompson, F. C. See Atkin, W. R., and Gordon, J.
- Thompson, F. S., and Kraner, H. M., refractories for manufacture of glass, B., 916.
- Thompson, Gartha, refractive dispersion of eugenol and isoeugenol, A., 663.
- Thompson, Geoffrey, Mitchell, D. M., and Kolb, L. C., influence of variations in systematic acid-base balance on carbohydrate tolerance in normal subjects, A., 1078.
- Thompson, G. V. See Crockett, W. G.
- Thompson, H. See Butenandt, A.
- Thompson, H. L. See Patillo, D. K.
- Thompson, H. W., phosphoric anhydride as drying agent, A., 587.
- Hovde, F. L., and Cairns, A. C. H., oxidation of carbonyl sulphide, A., 355.
- and Kelland, N. S., oxidation of zinc diethyl, A., 917. Oxidation of zinc dimethyl, A., 917.
- See also Hadman, G., and Hinshelwood, C. N.
- Thompson, J. G., physical properties of commercial thorium, B., 970.
- and Acken, J. S., determination of alumina and silica in steel by the hydrochloric acid residue method, B., 108.
- and Hamilton, E. H., nitrogen content of standard-sample steels, B., 108.
- Thompson, J. H. See Eastland, C. J.
- Thompson, J. J., and Oakdale, U. O., Thompson-Oakdale method for determination of halogen in organic compounds, A., 520.
- Thompson, James S., new method of producing negative ions, A., 441.
- Thompson, John S., Tanner, R. R., and Parker Rust-Proof Co., coating of metal [magnesium, zinc, and iron] surfaces, (P.), B., 592.
- Thompson, K. W. See Coombs, H. I.
- Thompson, L. G., and Amer. Bitumuls Co., aqueous asphalt emulsion, (P.), B., 535. Preparation of asphaltic emulsions, (P.), B., 694.
- Thompson, L. G., jun., and Smith, F. B., effect of phosphorus on nitrogen fixation by *Azotobacter*, B., 679.
- Thompson, L. M., great sulphur vein of Alston Moor, A., 1268.
- Thompson, M. See Drakes, Ltd.
- Thompson, M. de K., recent developments in electroplating, B., 673. Seat of the electromotive force in voltaic cells, B., 752.
- and Jelen, F. C., electrical conductivities of solutions of water in sulphur dioxide, A., 571. Chromium plating on zinc, B., 24.
- and Seyl, R. G., depolarisation by graphitic anodes in the electrolysis of aluminium oxide, B., 923.
- Thompson, M. M., and Patten, J. C., plating zinc-tin alloy [on iron and steel], (P.), B., 635.
- Thompson, M. R., metal-connected glass electrode, A., 367.

- Thompson, *Marvin R.*, Andrews, *M. J.*, and Ichniowski, *C. T.*, pharmacological activity of ethyl nitrite, U.S.P., A., 977.
- Thompson, *P. F.*, high-temperature experimental furnace, B., 47. Use of potassium hydroxide as a fusion agent, B., 194. Corrosion of chemical lead, B., 309. Corrosion of metals, B., 392.
- Thompson, *P. K.* See Thompson, *W. O.*
- Thompson, *S. H.*, and Morse Boulger Destructor Co., [refuse] incinerator, (P.), B., 174.
- Thompson, *T. G.*, and Taylor, *H. J.*, determination and occurrence of fluorides in sea-water, A., 477.  
See also Thomas, *B. D.*
- Thompson, *W. H.*, and Blandon, *E. E.*, mechanism of bimolecular reactions in solution; addition of methyl iodide to pyridine in several solvents, A., 1125.  
and Kelland, *N. S.*, oxidation of triethylphosphine, A., 1123.
- Thompson, *W. O.*, Thompson, *P. K.*, and Dickie, *L. F. N.*, monosodium thyroxine, desiccated thyroid, and an impure sodium salt of thyroxine; comparison of their effects when administered orally with the effect of thyroxine injected intravenously in an alkaline solution, A., 1336.
- Thompson, *W. R.*, McGarvey, *S. M.*, and Wies, *C. H.*, reproducible standard substrate in starch-amylose viscosimetry, A., 93.
- Thompson & Co., Inc. See Andrews, *Clarance W.*
- Thompson Products, Inc. See Bissell, *R. E.*
- Thomsen, *A. M.*, economic recovery of sulphur from smelter smoke, (P.), B., 306. Rotary ore furnace, (P.), B., 471. Treatment of white-water produced in pulp and paper making, (P.), B., 622. Paper pulp, (P.), B., 1003.
- Thomson, *A. S. T.* See Caldwell, *P. S.*
- Thomson, *D. L.* See Collip, *J. B.*
- Thomson, *D. W.* See Butler, *J. A. V.*
- Thomson, *G. P.*, and Murison, *C. A.*, electron diffraction by films of grease, A., 333.
- Stuart, *N.*, and Murison, *C. A.*, crystalline state of thin sputtered films of platinum, A., 665.  
See also Finch, *G. I.*
- Thomson, (*Sir*) *J. J.*, models of the electric field and of the photon, A., 1225.
- Thomson, *J. K.*, and Wilson, *F. J.*,  $\beta$ -arylaminoacetonarylamides. I., A., 1157.
- Thomson, *K.* See Sawyer, *R. A.*
- Thomson, *K. B.*, and Duffendack, *O. S.*, photographic method of measuring the relative intensities of spectral lines, A., 585. Collisions of the second kind involving ionisation and excitation, A., 1220.  
See also Duffendack, *O. S.*
- Thomson, *R. F.* See Imperial Chem. Industries.
- Thomson, *T.*, and Stevens, *T. S.*, organic compounds of boron, A., 702.
- Thomson, *W.* See Dekker, *K. D.*, and Honig, *P.*
- Thon, *C.*, filtering apparatus, (P.), B., 657.
- Thon, *N.*, neutron, proton, and positron, A., 762.  
See also Marie, *C.*
- Thor, *C. J. B.*, and Gortner, *R. A.*, sulphur in proteins. V. Effect of alkalis on cystine, with special reference to the action of sodium hydroxide, A., 265.
- Thoreau, *J.*, alkaline massif of Haute-Ruvubn (Urundi), A., 802.
- Thornberry, *H. H.*, effect of dyes on plant pathogenic micro-organisms, A., 546.
- Thorne, *A. M.*, and Bayley, *P. L.*, Raman spectra of two liquid phases of nitrobenzene, A., 1229.
- Thorne, *C. B.*, bleaching of pulp, etc., (P.), B., 665, 825. Apparatus for separating and recovering solid matter [e.g., long wood fibres] from liquid suspension, (P.), B., 992.
- Thornton, *J. E.*, colour photography and cinematography, (P.), B., 124, 125. Sensitive negative material for 4-colour photography and cinematography, (P.), B., 124.
- Thornton, *N. C.*, carbon dioxide storage. III. Influence of carbon dioxide on the uptake by fruits and vegetables. IV. Influence of carbon dioxide on the acidity of plant tissue, B., 1032.
- Thornton, *N. V.*, and Burg, *A. B.* [with Schlesinger, *H. I.*], behaviour of dichlorodifluoromethane and of chlorotrifluoromethane in the electric discharge, A., 1019.
- Thornton, *R. T.* See Criqui, *A. A.*
- Thornton, *S. F.*, test on plant material for diagnosing phosphorus deficiencies, A., 102. Test of plant material as an aid in determining the potassium needs [of soils], B., 933.
- Thorogood, *A. L.* See Barr, *G.*
- Thorpe, *J. F.*, and Goldberg, *A. A.*, anthraquinone derivatives [dihalogeno-anthraquinonesulphonic acids], (P.), B., 261.
- Linstead, *R. P.*, Thomas, *John*, and Scottish Dyes, Ltd., production of coloured products [pigments from *o*-cyanobenzamide etc.], (P.), B., 639.  
See also Imperial Chem. Industries.
- Thorpe, *M. A.* See Whitmore, *F. C.*
- Thorpe, *S. K.*, empirical tests in brewing and malting, B., 280.
- Thorpe, *W. V.* See Macgregor, *R. G.*
- Thorsen, *C. C.* See Higley, *E. A.*
- Thosar, *V. B.* See Naik, *K. G.*
- Thron, *H.*, colloid-chemical processes in the breaking of bituminous emulsions, B., 135.
- Thron, *M.* See Dirscherl, *W.*
- Throne, *B.* See Myers, *C. N.*
- Thrun, *W. E.*, washing potassium cobaltinitrite precipitate, A., 478.
- Thrupp, *T. C.* See Paine, *S. G.*
- Thümen, *E.* See Weyl, *W.*
- Thum, *A.*, influence of corrosion on fatigue limit of chromium-nickel alloys, B., 1015.  
and Holdt, *H.*, evaluation of boiler plates by the notched bending test, B., 790.
- Thnms, *K.* See Satke, *O.*
- Thunberg, *T.*, specificity of dehydrogenases, A., 424.
- Thurber, *F. H.*, chemical and physical properties of sweet-potato starch, B., 568. Sweet-potato starch, B., 1030.
- Thurber, *G. A.* See Richardson, *C. H.*
- Thurm, *R.*, heating tube [for bakers' ovens], (P.), B., 527.  
and Baker Perkins Co., viscose, (P.), B., 585. Potassium metal or sodium-potassium alloy, (P.), B., 634.
- Thurnherr, *A.* See Rot, *J.*
- Thurston, *A. P.*, oil-gas generation, (P.), B., 534.
- Thurston, *E. W.* See Siebert, *W. J.*
- Thurston, *L. M.*, and Barnhart, *J. L.*, effect of temperature of pasteurisation on acid coagulation of skim milk, B., 122.
- Thuss, *C.* See Blalock, *A.*
- Tibbets, *D. W.* See Salter, *W. T.*
- Tibbets, *D. M.*, McLean, *R.*, and Aub, *J. C.*, calcium and phosphorus metabolism. XX. High calcium excretion in exophthalmic goitre is not due to vitamin-D deficiency, A., 852.  
See also Salter, *W. T.*
- Tice, *L. F.*, extraction of capsaicin and its colorimetric determination in capsicum fruit and oleo-resin, B., 891.
- Tichmenev, *M. G.*, soluble carbohydrates of unripe pumpkin (*Cucurbita pepo*), and hydrolysis of its cellulose, A., 875.
- Tiddy, *W.*, and Koppers Co. of Delaware, removal of phenols from gas liquor, (P.), B., 694.
- Tide Water Oil Co., production of oil gases and aromatic hydrocarbons by destructive hydrogenation, (P.), B., 851.  
See also Rembert, *E. W.*
- Tideswell, *F. V.* See Mason, *T. N.*
- Tidmore, *J. W.*, and Williamson, *J. T.*, commercial nitrogenous fertilisers, B., 439.
- Tiedcke, *C.*, pharmacology of iodine. II. Absorption of iodine by the buccal mucosa and its distribution in the organism, A., 861.
- Tiede, *E.*, fluorescence microscope for strong illumination, A., 139.  
and Brückmann, *G.*, existence of a barrier layer photo-effect for lead sulphide? A., 338.  
and Hey, *Emil*, active nitrogen and formation of ammonia in the silent discharge with reference to the material of the electrodes and to catalytic problems, A., 131.
- Tiedjens, *V. A.*, and Blake, *M. A.*, factors affecting the use of nitrate- and ammonium-nitrogen by apple trees, B., 981.
- Tielsch, *H.* See Steinke, *E. G.*
- Tien, *Y. L.* See Chi, *Y. F.*, and Wilson, *S. P.*
- Tienchen, *L.*, genesis of the manganese deposits of Chinhhsien, Kwangtung, A., 1267.
- Tierie, *G.*, alkylsemioxamides, A., 598. Nitration of alkyl oxanilates, A., 704. Oxanilhydrazides, A., 817.
- Tietig, *C.*, activation of clay and manufacture of hydrochloric acid, (P.), B., 827.  
See also Baylis, *W. S.*
- Tietz, *H.* See Herzog, *J.*
- Tiffeneau, *M.*, molecular rearrangements in the cyclohexane series; passage into the cyclopentane series, A., 384.  
Lévy, (*Mlle.*) *Jeanne*, and Kayser, *F.*, dissymmetric influence exercised by an asymmetric carbon atom during the action of an organo-magnesium compound on an aldehyde group; production of a single diastereoisomeride, A., 710.
- Tift, *T. de C.* See Herthel, *E. C.*
- Tikhomirov, *I. M.* See Egorov, *A. N.*
- Tikhonov, *P. M.*, response of plants to water deprivation or to insufficient water supply, A., 874.
- Tikkanen, *E.*, detection of lactic acid, A., 172.
- Tilford, *P. E.* See Wilson, *J. D.*

- Tilitschëev, *M. D.*, and Doladugin, *A. I.*, Diesel fuel, B., 136.
- and Masina, *M. P.*, determination of the chemical composition of cracked gasolines. I. and II., B., 659.
- and Seledzhiev, *G. N.*, cracking at low super-atmospheric pressure, B., 135.
- See also Sachanov, *A.*
- Till, *A.*, descriptive soil map, A., 369, 484. How can the "descriptive" soil map be used in soil valuation, A., 929.
- Tilley, *C. E.*, ternary system  $\text{Na}_2\text{SiO}_3$ - $\text{Na}_2\text{Si}_2\text{O}_5$ - $\text{NaAlSiO}_4$ , A., 252. Portlandite, a new mineral from Scawt Hill, Co. Antrim, A., 1137.
- Tillmans, *J.*, vitamin-C, A., 100.
- Hirsch, *P.*, and Vaubel, *R.*, reducing power of plant foodstuffs and its relation to vitamin-C. VI. Purification of the reducing substance from [potatoes and] hipberries and its identity with vitamin-C, A., 433.
- Tilman, *J.*, vacuum distillation applied to [the testing of] lubricating oil, B., 949.
- Tilp, *A.*, rational utilisation of phosphoric acid in growth of plants, B., 933.
- Timikawa, *S.* See Sato, *J.*
- Timken Roller Bearing Co., machines for testing abrasive qualities of materials and for testing lubricants, (P.), B., 816.
- Timm, *F.*, barium in animal bones, A., 296. Histochemical demonstration of gold, A., 526. Histochemical detection of gold, A., 1218.
- Timmermans, *J.*, relation between physical properties of organic molecules and their constitution and configuration, A., 693.
- and Hennaut-Roland, (*Mme.*), physical constants of 20 organic compounds, A., 343.
- Timofeev, *P. V.*, and Nalimov, *V. V.*, influence of oxygen and sulphur on the photo-electric effect of alkalis (K and Na), A., 549.
- Timonin, *M.* See Bisby, *G. R.*
- Timoshenko, *G.*, re-striking of the electric arc as a discharge in highly ionised gases, A., 992.
- Timoshenko, *S. V.*, irrigation of tobacco, B., 172.
- Tin, *S.* See Yamamoto, *R.*
- Tincker, *M. A. H.*, and Darbshire, *F. V.*, formation of tubers and other storage organs; influence on translocation of the period of light and the supply of potassium, A., 436.
- Tindal, *M. T.*, non-protein-nitrogen of blood in health and in hepatic disease, A., 971.
- Tindall, *H. T.*, apparatus for fractional distillation of composite liquids, (P.), B., 608.
- Tinel, *J.*, and Ungar, *G.*, experimental adrenaline epilepsy in guinea-pigs treated with yohimbine, ergotamine, or peptone, A., 1189.
- Tingey, *A. H.*, determination of calcium in blood-serum and cerebrospinal fluid, A., 734.
- Tingey, *D. C.*, spontaneous combustion on weed plots sprayed with a solution of "Atlacide," B., 645.
- Tingey, *H. C.* See Gibbons, *W. A.*
- Tinker, *J. M.*, separation of 1:8-naphthyl-aminosulphonic acid from its isomerides, (P.), B., 468.
- See also Du Pont de Nemours & Co., *E. I.*, and Gubelmann, *I.*
- Tinnes, *A.*, cements and their physico-chemical behaviour as luting materials in petroleum bore-holes, B., 307.
- Tintometer, Ltd., B.P., 1932, antimony trichloride colour test for cod-liver oil, B., 114.
- Tiny, *P.*, regeneration and recovery of fatty oils, B., 513.
- Tippett, *E. J.* See Seddon, *E.*
- Tippmann, *F. F.*, hardening of Portland cement, B., 467.
- Tipson, *R. S.* See Levene, *P. A.*
- Tischer, *M.*, filter for liquids and gases, (P.), B., 495.
- Tisehtschenko, *V. E.*, Pesin, *Y. M.*, Kosttrak, *A. L.*, and Freidlin, *S. S.*, titanium dioxide from spheneapatites, B., 226.
- and Rudakov, *G. A.*, catalytic production of camphene from turpentine, B., 953.
- Tischtschenko, *V. V.* See Orlov, *N. A.*
- Tisdale, *W. H.* See Du Pont de Nemours & Co., *E. I.*
- Tissot, *A. N.* See Goff, *C. C.*
- Tisza, *E. T.*, Joos, *B.*, and Pyridium Corp., arsine oxides of phenylazo-*aa*-(benzene-azo-2:6)-diaminopyridine, (P.), B., 251.
- Tisza, *L.*, interpretation of polyatomic spectra, A., 553.
- Titan Co. A./S., manufacture of ammonium sulphate and iron compounds, (P.), B., 506. Titanium [oxide] compounds, (P.), B., 626.
- Titani, *T.*, viscosity of vapours of organic compounds. III., A., 1238.
- See also Chadwell, *H. M.*
- Titanium Alloy Manufacturing Co. See Kinzie, *C. J.*
- Titanium Pigment Co., Inc., [titanium] metallic soaps, (P.), B., 798. [Use of soaps in] pigments and paints, (P.), B., 1019.
- Washburn, *W. F.*, and Kingsbury, *F. L.*, titanium oxide, (P.), B., 316.
- See also Sabin, *A. H.*
- Titěica, *R.*, vibration spectra and molecular structure of methyl and ethyl alcohols, A., 337.
- Titherington, *R. J.* See Gordon, *Burgess.*
- Titelstad, *N.* See Hechenbleikner, *I.*
- Titov, *E.*, Preobraschenski, *A. M.*, and Panov, *V.*, processing pitch pine with caustic solutions, B., 478.
- Tittel, *H.* See Günther, *P.*
- Titus, *H. W.*, Byerly, *T. C.*, and Ellis, *N. R.*, effect of diet on egg composition. I. Partial chemical analyses of eggs produced by pullets on different diets, A., 631.
- McNally, *E.*, and Hilberg, *F. C.*, effect of calcium carbonate and calcium sulphate on bone development, A., 530.
- See also Byerly, *T. C.*, Ellis, *N. R.*, and Heywang, *B. W.*
- Titus, *L.*, and Meloche, *V. W.*, micro-extractor, A., 926.
- Tialin, *A. T.*, and Bystrova, *E. M.*, cause and mechanism of increase in cationic exchange in different soils on treatment with calcium hydroxide, B., 1024.
- Tiutiunnikov, *B.*, and Kasjanova, *N.*, properties of soap solutions. IV. Their filterability [and deflocculating power], B., 274.
- Pleschkova, *S.*, and Tschernitsehkina, *A.*, properties of soap solutions. V. Power of soap solutions to remove oily dirt, B., 754.
- Tjabbes, *B. T.*, constitution of red perchromates, A., 449.
- Tjebbes, *K.*, weight of leaves and formation of sugar [in beets], B., 440.
- Tobacco By-Products & Chemical Corporation. See Headlee, *T. J.*
- Tobata Imono Kabushiki Kaisha. See Kikuta, *T.*
- Tobler, *F.*, action of substances on growth of bast fibres, B., 759. Value of manurial trials with flax by the microscopical method, B., 884.
- Tobler, *J.*, electrolytic gas cells, B., 352.
- See also Baur, *E.*
- Tocco, *G.*, immunisation of cotton and esterification without solution, B., 380. Textile fibres from synthetic materials, B., 380.
- and Debenedetti, *E.*, solubility of cellulose in the hydrates of zinc and cadmium-tetrammine, B., 381.
- Toczyski, *T.* See Malczynski, *S.*
- Todd, *A. R.* See Charles, *J. H. F.*, and Raistrick, *H.*
- Todd, *C.* See Perdrau, *J. R.*
- Todd, *F. A.* See Goodeve, *C. F.*
- Todd, *G. W.*, positrons and atomic nuclei, A., 883.
- Todd, *J.* See Freudenberg, *K.*
- Todd, *J. P.*, and Baird, *J. Y.*, sterilisation of sodium bicarbonate [for injections], B., 410.
- Todd, *U. G.*, and Pfaudler Co., method for treating [incorporating two fluid] substances, (P.), B., 131. Extracts and beverages, (P.), B., 281. Treatment of [vegetable etc.] products, (P.), B., 845.
- Todd, *W.* See Imperial Chem. Industries.
- Todd, *W. M.*, [dyeing of] vat dyes on regenerated cellulose artificial silks, B., 1052.
- Todesco, *G.*, Debye effect in viscous dielectrics, A., 447.
- Todhunter, *E. N.*, vitamin-B<sub>2</sub> values of pasteurised milk, evaporated milk, and eggs, A., 432.
- Tödt, *F.*, effect of ions in sugar solutions and solvent mixtures, A., 33. Corrosion and local current, A., 358. Ionic activity at extremely high concentrations, A., 905. Conductivity measurements for controlling the boiling process [for beet-factory massecuites], B., 87.
- See also Spengler, *O.*
- Toeldte, *W.*, testing light-resistance of nitrocellulose in lacquers, B., 199. Mechanical properties of nitrocellulose lacquer films, B., 595.
- Toennies, *G.*, and Lavine, *T. F.*, oxidation of cystine in non-aqueous media. I. Solubility and stability of cystine in non-aqueous acid-base systems, A., 598.
- See also Lavine, *T. F.*
- Tönnis, *B.* See Kögl, *F.*
- Törnblom, *N.* See Söderström, *N.*
- Török, *G.*, and Becze, *G.*, bread and dough, (P.), B., 890.
- Török, *J. von.* See Csiky, *I. von.*
- Togo, *S.*, forced life test of [electric] heating wires, B., 1064.
- Tokarski, *J.*, microscopical analysis of phosphoric from the neighbourhood of Grodno (Poland), A., 482.
- Tokumitsu, *Y.*, spleen hormone, A., 1335.
- and Toyota, *G.*, interrelationship between non-specific cell activity and hormones with special reference to ultra-violet rays and the spleen hormone, A., 320.

- Tolansky, S., absence of fine structure in the arc spectrum of silver, A., 880. Nuclear spin and magnetic moment of tin, A., 1095.
- Tolbin, I., characteristics of bore-hole waters in the Kara-Chukhur district, A., 1136.  
and Arakelyan, A., gas and water from gushers in Kara-Chukhur, B., 133.
- Tollemache, H. D., grinding or pulverising apparatus, (P.), B., 176. Pulverised coal and colloidal fuel, B., 770.
- Tollert, H., accuracy of Einstein's viscosity law for strong electrolytes, A., 1243.
- Tolmatshev, P. I., Tian-Shan gaseous springs, A., 45.  
See also Chopin, V. G., and Ratner, A.
- Tolonen, F. J., gravity concentration tests on Michigan iron formations, B., 671.
- Tomanek, A. See Suszko, J.
- Tomaschek, R., regularities in the line spectra of solid bodies, A., 5. Structure of line spectra in crystals, A., 5. and Deutschbein, O., fluorescence of pure salts of the rare earths, A., 446. Emission of phosphors. III. Behaviour of samarium in the oxides of group II., A., 554. Relation of emission and absorption spectra of salts of rare earths in the solid state. I. Phosphorescence due to impurities, A., 660. Fluorescence of pure salts of the rare earths, A., 662.
- Tomesik, J., and Szongott, H., specific protein of the capsule of the anthrax bacillus, A., 1207.
- Tomecko, J. W. See Basterfield, S.
- Tomhave, A. E., and Mumford, C. W., effect of ground soya beans on cold-storage quality of eggs, B., 490.
- Tomíček, O., and Komárek, K., gravimetric determination of cobalt, using dinutrosorcinol, A., 138.  
and Rektófik, Z., volumetric determination of nitroprusside, A., 584.
- Tomii, R., physical meaning of Peukert's formula for lead accumulators, A., 786.  
and Kitajima, G., conductivity of vegetables and fruit, their acid contents, and degree of ripening, B., 763.
- Tomikawa, S., kidney-phosphatase in experimental nephritis, A., 629.  
See also Hori, I.
- Tomita, M., and Fujiwara, H., embryology of Amphibia. I., A., 966.
- Tomiyasu, Y., putrefactive odour of saké. I., B., 649.
- Tomlinson, A. H. See Loomis, N. E.
- Tomlinson, G. H., treatment of pulp-mill waste cooking liquors, (P.), B., 912.
- Tomlinson, M. C. W. See Western Electric Co.
- Tomlinson, (Miss) M. L. See Plant, S. G. P.
- Tommasi, G., manuring of wheat, B., 483.
- Tomoda, M. See Aso, K.
- Tomoda, Y., fermentation of cellulose by thermophilic bacteria. I. Preliminary. II. Properties of the attacked cellulose fibres compared with the original. III. Fermentation tests of various cellulosic materials, B., 186.  
and Yamaura, H., fermentation of cellulose by thermophilic bacteria. IV. Products of fermentation, A., 1083.
- Tomonari, M. See Hishiyama, K.
- Tomonari, T., influence of cellulose nitrate on refraction of liquid mixtures. I. II. Refractometric determination of the alteration in concentration of liquid mixtures by cellulose esters, A., 119, 455.
- Tomonari, T., influence of small amounts of acids on the refractive index of liquid mixtures, A., 669. Change of the refractive index of mixtures of ketones and alcohols by small amounts of acid, A., 1114.
- Tompa, H. See Halla, F.
- Tompkins, E. H. See Hetherington, D. C.
- Tompkins, F. C., and Wheeler, D. E., corrections for thermo-molecular flow, A., 1241.
- Tompsett, S. L. See Cuthbertson, D. P.
- Tonakanov, S. C., recovery of metals from copper-zinc ores, B., 193.
- Tone, F. J., and Carborundum Co., low-permeable refractory [of silicon carbide], (P.), B., 628. [Graphite] refractory article, (P.), B., 706.
- Tone, K. See Ueno, J.
- Tonegutti, M., influence of vaselines of different kinds on the stability of smokeless powders, B., 93.  
and Debenedetti, B., nitrite content of cordite, mark C.2, B., 93.
- Tongberg, C. O., and Johnston, F., vapour-liquid equilibria for *n*-hexane-benzene mixtures, A., 897.
- Toniolo, C., and Giammarco, G., influence of various factors on the synthesis of ammonia, B., 668.
- Tonkin, R. See Imperial Chem. Industries.
- Tonkonogov, L. I. See Pentegov, B. P.
- Tonks, L., and Sixtus, K. J., propagation of large Barkhausen discontinuities. III. Effect of a circular field with torsion. IV. Regions of reversed magnetisation, A., 216, 768.  
See also Sixtus, K. J.
- Tonn, O., transference of drugs to mother's milk, A., 83. Preparation of narcotic chloroform in the tropics, B., 43. Colouring of sterile quinine solutions by traces of copper, B., 284.
- Tonn, W. See Köster, W.
- Tonnesen, G. See Hansen, S.
- Tonnet, J. See Loeper, M.
- Tonomura, T., physical constants of organic liquids at low temperatures, A., 668.
- Tool Metal Manufacturing Co., Ltd., hard [tungsten carbide] alloys, (P.), B., 553, 835. Hard alloys, (P.), B., 553, 1063. Hard-metal alloys, (P.), B., 874.
- Toole, E., polarimetric determination of nicotine in tobacco and tobacco smoke, B., 892.  
See also Barta, L.
- Toole, F. J., and Johnson, F. M. G., solubility of oxygen in gold and in silver-gold alloys, A., 456.
- Toonder, F. E. See Krans, C. A.
- Topley, B., reaction velocity in reversible systems solid,  $\rightleftharpoons$  solid, + gas, A., 130.
- Topper, A., standards of basal metabolism for children of retarded growth, A., 1191.
- Toptschiew, K., preparation of hydrastinine from narcotine, A., 961.
- Torigoe, M. See Tweedy, W. R.
- Toriyama, Y., and Shinohara, U., impulse corona in water, A., 997.
- Torque, E. See Hantzsch, A.
- Tornau, O., and Meyer, K., ecology of oats. II. Germination in sugar solutions under outdoor growth conditions and relations between grain production, seedling suction force, and yield. III. Role of potassium in the water retention of plants, B., 84, 680.  
and Prassler, W., leaching of nitrogen [from soils], B., 81.
- Torno, H. See Krause, A.
- Tornow, E., rapid testing of ointments and chemicals for mercury, B., 204.
- Toronto Club, effect of china-wood [tung] and fish oils in outside white paints, B., 976.
- Toropov, S. See Dubinin, M. M.
- Torreadella, M., purifying air, (P.), B., 766.
- Torres, C., and Amargós, J., synthesis of hydroxyphenyl  $\alpha$ -bromoethyl ketones, A., 953.  
and Brosa, S., 2:1-dinitrophenylhydrazine in determination of carbonyl compounds, A., 964.
- Torres, I. See Collazo, J. A., Puyal, J., and Ruiz, A. S.
- Torrey, B., jun., Sanford, G. R., and Semet-Solvay Co., apparatus for separation of liquids having different b.p., (P.), B., 576.
- Torrey, G. G. See Booth, H. S.
- Torrey, W. V., and Sutermeister, E., study of some old papers, B., 620.
- Torricelli, A., alkaloid content of various organs of *Atropa belladonna*, A., 105.
- Toryu, Y., organic iodine in *Laminaria ochotensis*, Miyabe: protein-iodine, and search for di-iodotyrosine, A., 1344.
- Tosterud, M. See Dunham, R. S., and Edwards, J. D.
- Tóth, G., artificial ageing of brandy with aid of catalysts, B., 1030.  
See also Grassmann, W., and Zechmeister, L.
- Totomanow, D. See Stranski, I. N.
- Totzek, F., and Koppers A.-G., H., [reversible regenerative] coke ovens, (P.), B., 213.
- Toulouse, J. H. See Buchanan, J. H.
- Tour, S., heat-treating furnace atmospheres, B., 149.
- Tourtellotte, D. See Buskirk, H. H.
- Toussaint, R. See Martin, G.
- Tower, M. L., Dye, H. W., McDonough, F. L., and Niagara Sprayer Co., parasiticide, (P.), B., 519.
- Towne, E. B. See Gilman, H.
- Townend, D., White, N. C., and Fields Point Manufg. Corp., [electrolytic cell for] chemical manufacture [of caustic soda], (P.), B., 624.
- Townend, D. T. A., and Mandlebar, M. R., influence of pressure on the spontaneous ignition of inflammable gas-air mixtures. I. Butane-air mixtures, A., 1016.  
and Outridge, L. E., gaseous combustion at high pressures. XV. Formation of nitric oxide in carbon monoxide-oxygen-nitrogen explosions, A., 231.  
See also Bone, W. A.
- Townend, R. V. See Schumacher, H. J.
- Townsend, G. R. See Wilson, B. D.
- Townsend, J. F., electrically-driven psychrometer, A., 479.
- Townsend, J. S., distribution of energies of electrons in gases, A., 1222.  
and Jones, F. Llewellyn, ionisation by positive ions, A., 333.
- Toyabe, Y. See Kojima, Kitaro.
- Toyama, J., isolation of xanthine-oxidase from milk, A., 533. Potentiometric study of the Schardinger reaction, A., 980.
- Toyama, Y., and Tsuchiya, T., alcoholysis of fats. III. Formation of di- and mono-glycerides by partial alcoholysis of olive oil, B., 753.



- Toyama, Y., Tsuchiya, T., and Ishikawa, Tokuzo, alcoholysis of fats. I. Ethanolysis of olive oil by sodium hydroxide in ethyl alcohol. II. Methanolysis of olive oil by alkali hydroxides in methyl alcohol, B., 753.
- Toyoda, G., splenic hormone and its influence on thrombocytogenesis after ultra-violet ray radiation, A., 868.
- Toyoda, I., effect of alkalis on degumming of silk. V and VI, B., 780.
- Toyota, G. See Tokumitsu, Y.
- Tracy, P. H. See Ramsey, R. J.
- Trager, W., cellulose from the symbiotic intestinal flagellates of termites and of the roach, *Cryptocercus punctulatus*, A., 188.
- Trageser, G. See Schwarz, R.
- Traill, D. See Imperial Chem. Industries.
- Traill, R. J., and McClelland, W. R., reports of investigations: (Canadian) section of hydrometallurgy and electrochemistry; treatment of Groat Bear Lake pitchblende for extraction of radium, B., 392.
- Train, M. See Wolf, R.
- Trainer, J. E., Jones, W. A., and Babcock & Wilcox Co., device [digester] for treating materials chemically, (P.), B., 130.
- Tramm, H., rapid filtration device, A., 480.
- and Grimme, W., determination of the nitric oxide in coke-oven gas, B., 257.
- Trampetti, G. See Ferrari, A.
- Trancé-Rainer, M., excretion of the sexual hormones by the salivary glands, A., 539.
- Tranin, S., manufacture of a food [dried-egg] product, (P.), B., 1083.
- Transit Mixers, Inc. See Willard, C. L.
- Trans-Lux Daylight Picture Screen Corporation. See Payne, A. C.
- Trapp, H., double compounds of zirconium sulphate, A., 240.
- Traquair, J., Rawling, F. G., and Mead Research Eng. Co., paper manufacture, (P.), B., 461.
- Tratsch, E. L. See Vasserman, M. S.
- Tranbe, I., history of modern solution theories and the theory of adhesion pressure, A., 347. Removal of nicotine from tobacco smoke during smoking, B., 92.
- Skumburdis, K., and Goldberg, V., formation of renal calculi, A., 181.
- Traube, W., Kuhbier, F., and Härting, H., ferric complex salts of aliphatic polyhydroxy-compounds, A., 1272.
- Traubenberg, H. R. von, binding energy of nuclear constituents, A., 111.
- Eckardt, A., and Gebauer, R., atomic disintegration at low potentials, A., 205.  $\gamma$ -Rays emitted on disintegration of lithium, A., 334.
- See also Eckardt, A.
- Trautmann, O. C., purification of silica sand, (P.), B., 20.
- Trautner, W. See Borsche, W.
- Trantz, M., viscosity, thermal conductivity, and diffusion in gas mixtures. XXI. Absolute  $\eta$ -effective cross-section, molecular theoretical significance of critical temperature, and the calculation of critical pressure from  $\eta$ . XXII. Temperature coefficient of molecular diameter and its relation to Maxwell diameter, lattice size, and nuclear separation. XXIII. Absolute Enskog-Chapman diameter of gas molecules and their temperature coefficients, A., 17, 561.
- Trautz, M., and Blum, H., electrical differential method for measuring  $C_v$  in gases. V.  $C_v$  for carbon dioxide, A., 343.
- and Fröschel, E., effect of a magnetic field on viscosity of oxygen, A., 17.
- and Zündel, A., measurement of thermal conductivity of gases, B., 895.
- Travers, A., activation of earths, B., 963.
- and Bauer, change of constitution of tricalcium orthophosphate after fusion, A., 794. Change in constitution of tricalcium phosphate on fusion, A., 1128.
- and Chu, metaphosphoric acid, A., 1129.
- and Leduc, P., hydrated calcium aluminates, A., 917.
- and Lu, volumetric determination of lead, A., 364. Separation of phosphoric, arsenic, and vanadic acids from alumina, A., 477.
- Travers, J. T., Lewis, C. H., Urbain, O. M., and Ohio Sanitary Eng. Corp., purification of polluted liquids, (P.), B., 94.
- and Ohio Sanitary Eng. Corp., recovery of calcium lactate from whey, (P.), B., 91.
- Urbain, O. M., and Ohio Sanitary Eng. Corp., fertiliser, (P.), B., 805.
- Travers, M. W., pyrolytic condensation and decomposition of ethane in presence of hydrogen, A., 803. Mechanism of the combustion of fuel in industrial furnaces, B., 5. Technical research on a large scale [in coal carbonisation] and tests on plant and materials, B., 416. Formation of methane in the process of carbonising gas coals, B., 416.
- See also Stone, V.
- Travis, P. M., dispersion mill, (P.), B., 129.
- and Travis Process Corp., soap, (P.), B., 638.
- Travis Process Corporation. See Ostermann, W., and Travis, P. M.
- Travnick, M., new phosphors from the hydrated sulphates of aluminium and other metals with organic luminous substances, A., 917.
- Traxler, R. N., Baum, L. A. H., and Pittman, C. U., determination of void content of close-packed mineral powders; effect of particle size, shape, and texture, B., 527.
- and Pittman, C. U., interfacial tension between asphaltic materials and solutions of alkaline inorganic salts, A., 122. Viscosity of coal tars and pitches, B., 338.
- See also Meade, G. P.
- Traylor Vibrator Co. See Flint, J. A.
- Treadwell, W. D., and Hartnagel, J., determination of phosphorus in aluminium, B., 23.
- and König, Walter, mol. wt., viscosity, and conductivity of hydrous silicic acid, A., 348. Colloidal silicic acid. II, A., 673.
- König, Walter, and Adam, B., viscosimetric behaviour of heavy-metal ferrocyanides precipitated in dilute solution, A., 673.
- and Terebesi, L., chlorination of aluminium oxide with chlorine and carbon monoxide, A., 37. [Free] energy of formation of aluminium oxide from its elements, A., 1119.
- Treat, F. H., and Duff Patents Co., mechanical gas producer, (P.), B., 454.
- Trebacziewicz, T. See Centnerszwer, M.
- Treibtsch, H., filling for dental purposes, (P.), B., 44.
- Treff, W., and Werner, H., constitution of jasmone, A., 1296.
- Trefouël, (Mme.) J. See Fourneau, E.
- Trehin, R., influence of temperature on absorption of aqueous hydrochloric acid in the far ultra-violet, A., 111. Absorption of aqueous solutions of hydrochloric acid in the far ultra-violet, A., 1226.
- Treibacher Chemische Werke Akt.-Ges. See Fattinger, F.
- Treibs, A., ultra-violet absorption of the porphyrins, A., 76, 724. Mechanism of the introduction of iron into porphyrins, A., 76. Biological degradation products of chlorophyll in animal concrements, A., 1189. Sulpho-derivatives of chlorophyll porphyrins; structure of porphyrins, A., 1309.
- and Herrlein, F., chlorophyll. XXXVI. Verdoporphyrin and degradation of chlorophyll by alkali, A., 1173.
- and Steinmetz, H., occurrence of anthraquinone dyes in mineral kingdom (graebeite), A., 1268.
- Treibs, W., autooxidation of  $\alpha\beta$ -unsaturated ketones. VI. Course and products of the autooxidation of piperitone. VII, A., 509, 1298. Cymocinol [2:6-dihydroxy-*p*-cymeno], A., 1299. "Gumming" of phenols by auto-oxidation and its significance for technical solvent recovery, B., 379.
- Treichler, R. See Fraps, G. S.
- Treje, R., and Benedicks, C., electrolytic extraction of slag from iron and carbon steel, B., 918.
- See also Alber, H.
- Treloar, A. E., statistics in the service of cereal chemistry, B., 42. Evaluation of systematic and random errors in protein, moisture, and ash determinations, B., 1078.
- and Larmour, R. K., variability of loaf volume in experimental baking, B., 488.
- Tremblay, J. L., electrometric determination of halogens, A., 1132.
- Tremearne, T. H. See Wiebe, R.
- Trenear-Thomas, H., and Manlove, Alliot & Co., filters, (P.), B., 657.
- Trénel, M., and Harada, M., so-called "neutral salt decomposition" by peat and humus, B., 516.
- and Zeiher, E., characterisation of the condition of weathering of humid soils by determination of the free and KCl-soluble alumina and its relationship to soil acidity, B., 598.
- Trenner, N. R., and Taylor, H. A., thermal decomposition of ethyl mercaptan and ethyl sulphide, A., 374.
- Trent, W. E., and Trent Process Corp., [heat]-treatment of carbonaceous material, (P.), B., 51.
- Trent Process Corporation. See Trent, W. E.
- Treon, J. F. See Fry, H. S.
- Tres Chemisch-Pharmaceutische Industrie & Handels Akt.-Ges. See under Tres Gyogyszer-Vegyeszeti Ipari es Kereskedelmi R. T.
- Tres Gyogyszer-Vegyeszeti Ipari es Kereskedelmi R. T., improving flour for manufacture of foodstuffs, (P.), B., 249. Gluten-like product, (P.), B., 845.
- Trescher, J. H. See Harrop, G. A.
- Tress, H. J. See Drew, H. D. K.
- Tressler, D. K., and Frosted Foods Co., egg product, (P.), B., 604.

- Tretolite Co. See De Groote, *M.*
- Trevithick, *H. P.*, olive oil foebts oleine, B., 877.
- Triebold, *H. O.*, Webb, *R. E.*, and Rudy, *W. J.*, chemical study of rancidity. III. Recent developments in study of oxidative rancidity of special interest in the cereal industry, B., 809.  
See also Anderson, *A. K.*
- Trifonov, *A.*, effect of the walls of the container on photochemical reaction  $H_2 + Cl_2$ , A., 236.
- Trifonov, *I.*, chemical processes in the roasting of galena with lime, B., 510. Deoxidation of calcium sulphate in the roasting of galena by the Carmichael-Bradford process, B., 510.
- Trikojus, *V. M.*, and White, *D. E.*, constitution of tasmanol, A., 829. Constituents of wood oil of *Callitris* pines. I. Constitution of callitrol, B., 732.  
See also Dwyer, *F. P. J.*, and Mander-Jones, *B.*
- Trillat, *J. J.*, change in the lattice of cellulose nitrate, A., 216. Study of crystalline orientation by electron diffraction, A., 1098.  
and Leprieux-Ringuet, *L.*, molecular phenomena at an oil-water surface: application to testing [lubricating oils], A., 565.  
and Muraour, *H.*, action of electrons on nitrogen iodide and other explosives, A., 915.  
See also Marinesco, *N.*
- Trimbach, *H.*, tendency of different animal species to ketonuria and ammonuria, A., 1193.
- Trimble, *H. C.*, Carey, *B. W.*, jun., and Maddock, *S. J.*, rate of absorption of glucose from the gastro-intestinal tract of the dog, A., 528.
- Trimble, *H. M.*, and Ebert, *P. F.*, effect of ethylene glycol on activity of sulphuric acid in aqueous solutions [at 25°], A., 466.
- Trinidad Leaseholds, Ltd., Heaton, *W. B.*, and Melvill, *F. L.*, treatment, particularly cracking of hydrocarbon material, (P.), B., 455.
- Trinius, *H.*, economical heat regenerators for open-hearth furnaces, B., 192, 847.
- Trinks, *W.*, economy and capacity of glass tanks, B., 915.
- Trinquier, *E.*, See Aubertin, *E.*
- Triplex Safety Glass Co., Ltd., and Wilson, *J.*, stratified bodies, such as strengthened glass, (P.), B., 965.
- Tripp, *F.*, See Holmes, *A. D.*
- Trischler, *J.*, See Niklas, *H.*
- Trivédi, *R.*, See Ramart-Lucas, (*Mme.*) *P.*
- Trivelli, *G.*, See Reichstein, *T.*
- Triwosch, *S.*, iron as a corrective for chlorosis in yellow lupins (*Lupinus luteus*) on calcareous and limed soils, B., 884.
- Trkal, *V.*, and Zaviska, *F.*, passage of photons through atoms, A., 884.
- Trnka, *R.*, single or mixed fertilisers? B., 933.
- Troberg, *B.*, potentiometric determination of hypochlorite and chlorate with cuprous chloride, A., 135.
- Trobridge, *G. W.*, See Dunlop Rubber Co.
- Tröger, *G.*, oil-absorption of pigments, B., 276. Casein paints and casein emulsion media, B., 1066.
- Troell, *K. E.*, See Crowther, *E. M.*
- Trömel, *G.*, See Klement, *R.*, and Körber, *F.*
- Trofimov, *N.*, See Fedorov, *V.*
- Trogus, *C.*, reversibility of equilibria in cellulose reactions, A., 902.  
and Hess, *K.*, ill-defined fibre-diagrams of cellulose derivatives, A., 558. Röntgenographic investigation of proteins. I. Behaviour of silk against acids and bases, A., 731.  
See also Dziengel, *K.*, and Hess, *K.*
- Trojan Powder Co. See Snelling, *W. O.*
- Troje, *E.*, soil type and [sugar] beet quality, B., 484.
- Troland, *L. T.*, and Technicolor Motion Picture Corp., two-stage dyeing of [kinematograph] films, (P.), B., 492.  
See also Technicolor Motion Picture Corp.
- Trombe, *F.*, neodmium free from iron and silicon, A., 475.  
See also Billy, *M.*
- Trombe, *M.*, See Bouchonnet, *A.*
- Trommsdorff, *E.*, See Staudinger, *H.*
- Tronev, *V. G.*, See Ipatiev, *V. V.*, jun.
- Tronov, *B. V.*, and Ladygina, *L. V.*, mechanism of nitration of benzene, A., 56.
- Tronstad, *L.*, registering potentiometric determination of small quantities of dissolved copper, A., 42. Investigation of thin surface films on metals by means of reflected light, A., 459.
- Tropp, *C.*, and Weise, *W.*, excretion of "atebrin" in urine and faeces, A., 632.
- Tropp, *M. Y.*, and Soltz, *L. M.*, determination of phytin and calcium glycerophosphate, B., 892.
- Tropsch, *H.*, and Jellinek, *V.*, determination of small amounts of volatile hydrocarbons in presence of water, B., 497.  
and Kassler, *R.*, freeing coke-oven gas from nitrogen oxides and converting the latter into ammonia, (P.), B., 181.  
and Šimek, *B. G.*, thermal decomposition of Bohemian brown coal producer tar, B., 99. Critical points of solutions of commercial hydrocarbon mixtures in liquid ammonia, B., 497.  
and Weinstein, *O.*, use of catalysts for high-pressure hydrogenation of phenols and hydrocarbons, B., 581.
- Trotman, *S. R.*, use of aqueous solutions of chlorine and bromine for production of unshrinkable finish on knitted woollen goods, B., 587.  
and Frearson, *T. B.*, quantitative analysis of dyestuffs, B., 421.  
and Gee, *G. N.*, determination of acids in wool, with particular reference to dyed goods, B., 102. Effect of metallic catalysts in the bleaching of knitted woollen goods with hydrogen peroxide, B., 424. Factors which affect determination of acidity in wool, B., 501.  
and Horner, *H.*, scouring of knitted woollen goods containing mineral oil, B., 104. Determination of direct and acid dyes by means of aryl-substituted guanidines, B., 823.
- Trotter, *A. H.*, and Atmospheric Nitrogen Corp., treatment of gases under pressure, (P.), B., 130.
- Trotter, *H.*, jun., variation in the Kerr electro-optical constant of nitrobenzene with temperature near a transition (9-6°), A., 1232.
- Trotter, *W.*, and Minerals Separation North Amer. Corp., froth flotation concentration of [carbonate] ores, (P.), B., 69.
- Trought, *H.*, specificity of haemoglobins, including embryonic haemoglobin, A., 733.
- Tront, *G. M.*, and McCan, *J. C.*, factors in the separation of serum from bottled cream, B., 40.
- Trowbridge, *E. A.*, See Brody, *S.*
- Trowbridge, *M. L.*, See Brogden, *E. M.*
- Troxell, *W. W.*, See Ober, *B.*
- Trozenko, *A.*, See Petrenko-Kritschenko, *P.*
- Trtlek, *J.*, diphenylcarbazide as mercurimetric indicator, A., 1260.  
See also Dubsky, *J. V.*
- Truax, *T. R.*, See Hunt, *G. M.*
- Trubizin, *D.*, nitrogenous extractives of ox testes, A., 736. Nitrogenous extractives of ovaries, A., 847.
- Truchet, *R.*, oxidation of true acetylenic hydrocarbons by selenium dioxide: preparation of  $\alpha$ -acetylenic alcohols, A., 486. Oxidation of disubstituted acetylenes by selenium dioxide, A., 816.
- Truesdail, *J. H.*, See Williams, *R. J.*
- Truesdail, *R. W.*, and Culbertson, *H. J.*, sardine and tuna oils as sources of vitamin-D, B., 595.  
and Shahinian, *L.*, vitamin-A and -D in tuna meal, A., 871.
- Truesdell, *P.*, new distillation unit increases yield of lubricating oils, B., 1043.  
See also Egloff, *G.*
- Trufanov, *A. V.*, [preparation of] ergosterol from ergot, A., 390.
- Truffaut, *G.*, and Lefouin, *M.*, influence of microflora of the soil on growth of wheat, B., 1072.
- Trnhaut, *R.*, See Péronnet, *M.*, and Sannié, *C.*
- Trumble, *M. J.*, and Coals & Chemicals, Ltd., treatment [carbonisation] of carbonaceous material, (P.), B., 660.
- Trumble Gas Trap Co. See Adams, *E. H.*, and McGraw, *W.*
- Trumbull, *H. L.*, importance of accelerators in the modern rubber industry B., 200.
- Trumpy, *B.*, rotation Raman spectrum of  $O_2$  at high pressures, A., 998.
- Trunel, *P.*, brominated aliphatic nitriles and ketones, A., 1039.
- Truog, *E.*, vapour purification process, (P.), B., 769.  
See also Fink, *D. S.*, and Mehlich, *A.*
- Trusfus, *I.*, See Cherbuliez, *E.*
- Trushlevich, *V. I.*, concentration of Akdjal arsenic-bearing sands, B., 1062.  
and Simonov, *K. A.*, concentration of Turlansk lead ore, B., 309.
- Trusty, *A. W.*, rôle of sulphuric acid in the treatment of [hydrocarbon oil] pressure distillate, B., 659.
- Truszkowski, *R.*, and Czuperski, *H.*, development of uricase in tadpoles of *Rana temporaria*, A., 636.  
and Goldmanówna, uricase. VI. Distribution in various animals, A., 865.
- Tryller, *H.*, [potato]-starch manufacture and weather, B., 520.
- Trzebiatowski, *W.*, recrystallisation phenomena with synthetic metallic substances, A., 450.
- Tsai, *C.*, determination of total carbohydrate content of the liver tissue in the fasting rabbit, A., 1066.
- T'sai, *L. S.*, and Hogness, *T. R.*, diffusion of gases through fused quartz, A., 20.
- Tsao, *D.*, and Lynn, *E. V.*, chemistry of two Chinese drugs, B., 891.
- Tsao, *J. C. Y.*, See Coffman, *D. D.*

- Tschapek, M. V., determination of sp. gr. of hydrophilic and hydrophobic powders, A., 481.
- Tschchikvadze, K. A. See Tzofin, E. A.
- Tschegis, A. F. See Jabalberg, G. I.
- Tschekalin, M. A. See Filipitschev, S. F.
- Tschekirian, A. See Cantacuzène, J.
- Tschelincev, V. V., and Nikitin, E. K., condensation of furan compounds. II. Coloured derivatives of the furylidene series, and a method of determining small quantities of acetone based on them, A., 1179.
- and Vorobieva, A. F., determination of furfuraldehyde in various vegetable products, B., 661.
- Tschenzova, L. G. See Britzke, E. V.
- Tscherniaev, I. I., complex platinum compounds, A., 1131.
- Tschernitschkina, A. See Tiutiunnikov, B.
- Tschernoshukov. See under Chernozhukov.
- Tscherntzov, S. M. See Kagan, M. Y.
- Tschesche, R., isomerism of the ketones in ring B of the cholesterol ring system, A., 156. Vitamin-B<sub>4</sub>, A., 541.
- See also Windaus, A.
- Tschestakoff, P., preparation of solid or half-solid solutions of alkali hypochlorites, (P.), B., 427.
- Tschilikin. See under Chilikin.
- Tschilingarian, A. A. See Suknevitch, I. F.
- Tschingo-Tschingas, K. M., milling and baking properties of the wheat varieties in U.S.S.R., B., 281.
- Tschirkov, S. K., volumetric determination of chlorine ions in presence of sodium fluosilicate, A., 582.
- See also Anosov, V. Y.
- Tschitschibabin, A. E., structure of musk ketone, A., 276.
- and Katznelson, M. M.,  $\alpha$ , $\beta$ -dimethylvaleric acid, A., 697.
- and Koriagin, S. I.,  $\alpha$ -cyclopentylpropionic acid, A., 711.
- and Voroshechov, N. N., jun., derivatives of 2:3-pyridinethioindoxyl [3-hydroxy-4:5-pyridothiophen], A., 405.
- Tschuldanovsky, V., fine structure of the metastable  $2D_{5/2,3/2}$  terms of nitrogen, A., 547.
- Tschurilina, Z. V. See Vasiliev, A. A.
- Tsekinovska, R. M. See Faraschjan, S. P.
- Tsen, Z. Y., relation of phosphorus to metabolism of sugar in the animal body, and action of insulin and synthalin, A., 192.
- Tseng, A. T. K., and Hydraulic Brake Co., fluid composition [for fluid-pressure apparatus], (P.), B., 848.
- Tseng, C. L., apparatus for detection of elements by the sodium fusion test (copper ignition tube and pellet press), A., 1022.
- and Chu, E. J. H., constitution of monosodium *d*-glutamate, A., 382. Optimum conditions for preparing *d*-glutamic acid hydrochloride from wheat gluten. II. Effect of purity of acid, time of reaction, climatic conditions, and other experimental circumstances, A., 814. Decolorisation of the solution in the preparation of *d*-glutamic acid hydrochloride by hydrolysis of wheat gluten, A., 814. Use of American brands of decolorising charcoal in the preparation of *d*-glutamic acid hydrochloride by hydrolysis of wheat gluten, B., 616.
- See also Chang, D. V., and Chu, E. J. H.
- Tserkovnikov, I. M. See Kazanski, B. A.
- Tsherkes, L. A., and Jurist, P., effect of silage on vitamin-B content of milk, B., 762.
- Tsou-Ren-Kou. See Girardet, L. F.
- Tsubota, T. See Miyaoka, U.
- Tsuchida, T. See Kanamaru, K.
- Tsuchiya, M., butyl alcohol-acetone fermentation. I and II, A., 537.
- Tsuchiya, T., and Akiyama, G., re-esterification of fats with glycerol, B., 753.
- See also Toyama, Y.
- Tsudji, M., and Ikebe, K., perfusion of the stomach. III. Ketonic substances in gastric juice and the fate of *l*-leucine in the stomach wall, A., 745.
- and Matsuoka, Y., perfusion of the stomach. II. Perfusion with *l*- and *d*-alanine, A., 745.
- and Yoshida, Y., perfusion of the stomach. I. Perfusion with histamine, A., 745.
- Tsuge, T. See Konishi, K.
- Tsui, Y. See Itano, A.
- Tsujimoto, Magosaburo, *Platycodon grandiflorum*, D.C. I.—III., A., 1344.
- Tsujimoto, Mitsumaru, and Koyanagi, H., nigaki oil, A., 876. New unsaturated acid from kernel oil of "akarittom," *Parinarium laurinum*. I, B., 476.
- Tsujimura, M. See Miura, M.
- Tsukitani, N. See Hemmi, F.
- Tsukunaga, K., alkali soils in Manchuria and Mongolia, B., 241.
- Tsumaki, T. See Pfeiffer, P.
- Tsuneoka, S. See Fujimura, K.
- Tsunoda, T., and Shirai, S., microscopical examination of calcium and iron deposition in human tissues, A., 1326.
- Tsunokae, R., and Enomoto, G., electrical conductivity of textile fibres, B., 910.
- Tsunoo, S. See Fujiwara, H., and Kataoka, E.
- Tsurumi, S., thermal and chemical studies of lepidomelane from Ishikawa, A., 1030.
- See also Kôzu, S.
- Tsutsui, H., pathological excretion of oxyproteic acid, A., 740.
- Tsvetkov, A. N., new case of membrane equilibrium, A., 459.
- Tsypin, G. S., preparation of methylaniline, B., 420.
- Tubandt, C., electrical conduction and diffusion in non-metallic solids, A., 1000.
- Reinhold, H., and Neumann, A. L., electrical conductivity and diffusion in solid silver sulphide, selenide, and telluride; mechanism of the formation of these compounds from their elements, A., 467.
- Tube Reducing Corporation. See Neuberth, G. E.
- Tuchman, L. R., and Reiner, Miriam, cystine content of human serum-proteins, A., 733.
- Tuchmann, W. See Pummerer, R.
- Tucholski, T., thermal analysis of pierates. I, A., 1257.
- Tucker, E. See Hockensmith, R. D.
- Tucker, H. L., magnesite composition flooring, (P.), B., 348.
- Tucker, N. B., and Reid, E. E., cyclic and polymeric compounds from reactions of ethylene mercaptan with polymethylene halides, A., 398.
- Tucker, R. C. See Randolph, E. E.
- Tucker, R. T. See Osterstrom, R. C.
- Tucker, W. A., and Sinclair, S. E., creep and structural stability of nickel-chromium-iron alloys at 870°, B., 750.
- Tucker, W. H., possible relation of aciduric and acidogenic micro-organisms to dental caries, A., 852.
- Tudeberg, A. See Parts, A.
- Tudor-Hart, O., treatment of yarns, (P.), B., 1054.
- Tübben, L. See Maruhn, J.
- Tufts, E. V. See Greenberg, D. M.
- Tugai, I. E. See Kudelya, N. N.
- Tukamoto, T. See Asahina, Y.
- Tukats, S., micro-iodometric determination of gold in animal organs, A., 654.
- Tulecki, J. See Krause, A.
- Tuley, W. F. See Naugatuek Chem. Co.
- Tull, R., zirconium additions to steel and cast iron, B., 672.
- Tulleners, A. J. See Dros, A., Leendertse, J. J., and Waterman, H. I.
- Tullis, D. R., prevention of grain growth in wrought aluminium alloys, B., 871.
- and Oakley, P., aluminium alloy, (P.), B., 112.
- Tulyakov, A. P. See Baboshin, A. L.
- Tumarkin, D., simplified technique for determining viscosity of cuprammonium solutions of cellulose, B., 698.
- See also Galperin, D.
- Tunell, G., Posnjak, E., and Ksanda, C. J., crystal structure of tenorite (cupric oxide), A., 558.
- Tunger, H. See Gootz, R.
- Tunstall, H. A. See Henley's Telegraph Works Co., Ltd., W. T.
- Tuot, M. See Meyer, A.
- Tupholme, C. H. S., electrostatic precipitation in the carbonisation industries, B., 178. Tricresyl [tolyl] phosphate as solvent for phenol recovery from gas-plant effluents, B., 373.
- Turbo-Mixer Corporation. See Valentine, K. S.
- Turco, G. See Ubaldini, I.
- Tureen, L. L., blood-diastase in cancer, A., 1188.
- Turek, O., thermal decomposition of trinitrotriazidobenzene and other polynitropolyazidobenzenes, A., 1123.
- Turfery, J. C. O. See Griffin & Tatlock, Ltd.
- Turk, K., and Porcelain Enamel & Manuf. Co. of Baltimore, porcelain enamels, (P.), B., 706.
- Turk, K. L., and Work, S. H., apparent and true sugar of the blood of lactating cows fed on rations of varying fat content, A., 521.
- Turk, L. M., nitrogen fixation in Michigan soils, B., 482. Composition of soybean plants at various growth stages as related to their rate of decomposition and use as a green manure, B., 804.
- Turnau, (Mlle.) M., geometric method of rock analysis, A., 802.
- Turnau, R. See Merres, E.
- Turnbow, G. D., [frozen] food product, (P.), B., 651.
- See also Gray, C. E.
- Turnbull, A., apparatus for extraction of tanning materials for analysis, B., 597.
- Turnbull, R. See McLennan, J. O.
- Turnbull, S. G. See Lagasse, A. M.
- Turner, B. B., and Hulpieu, H. R., antidotal action of sodium thiosulphate and dihydroxyacetone in cyanide poisoning, and alleged antidotal action of glucose, A., 1079.
- Turner, C. W., and Frank, A. H., effect of the ovarian hormones, theelin and corporin, on growth of mammary gland of the rabbit, A., 869.

- Turner, C. W. O. See Hyatt, J. B.  
 Turner, E. E. See Shaw, (Miss) F. R.  
 Turner, F. J., piemontite in quartz-muscovite-schist from New Zealand, A., 1137.  
 Turner, H. A. See Scholefield, F.  
 Turner, H. W. See Brit. Thomson-Houston Co.  
 Turner, J. V., and Pool, C. L., ammonia-chlorine treatment of the East Providence, Rhode Is., water supply, B., 494.  
 Turner, K. See Ridge, B. P.  
 Turner, K. B., prevention of cholesterol atherosclerosis in rabbits. I. Effect of whole thyroid and of potassium iodide, A., 1321.  
 and Khayat, G. B., prevention of cholesterol atherosclerosis in rabbits. II. Influence of thyroidectomy on the protective action of potassium iodide, A., 1321.  
 Turner, L. A., and Samson, E. W., dissociation of excited iodine molecules by collisions with argon atoms, A., 200.  
 See also Snively, B. L.  
 Turner, L. B. See Wizevich, P. J.  
 Turner, M. E., and Gibson, R. B., protein-lipid combinations in blood and body-fluids. I. Normal human and dog plasma and horse serum, A., 294.  
 Turner, N., rotenone as an insecticide, B., 244.  
 See also Koopman, M.  
 Turner, R. G., and Weeks, M. Z., microcolorimetric determination of iodine in blood, A., 294.  
 Turner, R. H. See Harrap, E. R.  
 Turner, W. D., absorption bulb for combustion analysis, (P.), B., 609.  
 Turner, W. E. S., formation of sodium sulphate in glass furnaces, and defects arising therefrom, B., 748.  
 See also Howarth, J. T., Preston, E. and Seddon, E.  
 Turpin, U. F., sewage plant rebuilt to treat rayon wastes, B., 206.  
 Turski, J., and Kaźmierczak, P., 2:5-dihydroxy-3:4:5:6-tetrahydropyrimidine, A., 957.  
 See also Ivanovski, V.  
 Tuschak, N. See Ifimesco, G.  
 Tuschhoff, E., should stoneware be fired in a reducing atmosphere? B., 1009.  
 Tutkevitch, L. M. See Besuglov, V. P.  
 Tuttle, G. H., physiology of insulin, A., 1209.  
 Tuttle, M. H., distillation of lubricating stock, (P.), B., 53.  
 Tutundžić, P. J. See Pushin, N. A.  
 Tuura, L. See Sihvonen, F.  
 Tuve, M. A., Hafstad, L. R., and Dahl, O., high-speed protons, A., 1098.  
 Tuvin, L. A., treatment of insoluble or partly insoluble solid compounds for internal use, (P.), B., 845.  
 Tuwim, L., cosmic radiation measurements with a new tube-counter, A., 884.  
 See also Kolhörster, W.  
 Tverdokhlebov, L. See Fridman, K. M.  
 Tverdovski, I. R., composition of anodic gases from cryolite-alumina bath, B., 233.  
 Tweedy, W. R., and Torigoe, M., parathyroid hormone, A., 319.  
 Twiss, D. See Farinholt, L. H.  
 Twiss, D. F., industrial uses of rubber latex, B., 557.  
 See also Dunlop Rubber Co.  
 Twitchell Process Co. See Heckel, Herman.  
 Twyman, F., apparatus for rapid spectrophotometry of liquids in the ultra-violet region, A., 247.  
 and Lothian, G. F., conditions for securing accuracy in spectrophotometry, A., 1135.  
 Tyabji, A. See Naegli, C.  
 Tyagun-Ryadno, M., relations of *Bacillus mycoides* with ammonification, nitrification, and soil fertility, B., 804.  
 Tychowski, A., saccharification of starch, A., 748.  
 Tyler, C. See Du Pont de Nemours & Co., E. I.  
 Tyler, E., and Watkin, F., experiments with capillary jets, A., 44.  
 Tyler Co., W. S. See Harty, W. A.  
 Tyner, J. See Hubbard, R. S.  
 Typke, K., comparison of viscosity of glycerol and glycol with that of mineral oils, B., 138. Formation of carbonate in litharge-glycerol cement, B., 191. Highly insulating oils, B., 949. Ageing of oil in transformers, B., 950.  
 Tyrén, F. See Svensson, E.  
 Tyrer, C. C. See Cellulose Acetate Silk Co.  
 Tyrer, D. See Imperial Chem. Industries.  
 Tyrrell, W. A., and Chem. Treatment Co., electrodeposition of chromium, etc., (P.), B., 236.  
 Tytus, J. B., and Amer. Rolling Mill Co., rolling and annealing process [for sheet iron], (P.), B., 632.  
 Tyzzer, H. J. See Magnavox Co.  
 Tz, N., preparing ash-free coke, B., 98.  
 Tzaregordtzev, I. D. See Aseev, N. P., and Selivanov, B. P.  
 Tzareva, T. See Stepanova, A.  
 Tzekhnovitzer, E. V., methods for investigating corrosion of metals, A., 33.  
 Tzibalist, B. I. See Lichoscherstov, M. V.  
 Tzofin, E. A., acetylation of phenetidino, A., 270. Bornol from the camphene fraction, B., 284.  
 and Radushkevich, A. T., synthetic camphor, B., 260.  
 and Tschchikvadze, K. A., demethylating phenol ethers, A., 706. The monoamide of salicylacetic acid, A., 712.  
 Tzvetkov, A. I. See Ginsberg, A. S.  
 Tzyba, A. N. See Nametkin, S. S.
- U.
- U.G.I. Contracting Co. See Janeway, P. W., jun., and Rusby, J. M.  
 Ubaldini, I., and Bissi, L., constitution and possibility of utilising nuts of the "Dum" palm, B., 113.  
 and Turco, G., preparation of azo-dyes from phenols of primary tar, B., 55.  
 Ubbelohde, A. R., reaction cells in chain reactions, A., 355. Interface catalysis in reduction of metallic oxides, A., 357. Flame phenomena of carbon monoxide, A., 1126.  
 See also Egerton, A.  
 Ubbelohde, L., viscosity as a constant of materials and its measurement, A., 587. Simplest and most accurate viscosimeter, and other instruments with suspended level, B., 607.  
 Uber, F. M., and Patten, C. G., *L* absorption discontinuities of gold, A., 548.  
 Uchida, Shun-ichi, revised charts for calculation of gas radiations, A., 250. Influence of fluid velocity on heterogeneous reactions. I. General theory, A., 911. Calculation of gas radiation at high temperatures, A., 1005. Measurement of true gas temperatures, B., 895.  
 Uchida, Sō, distilling flask to prevent bumping, A., 1265.  
 and Ai, S., proteins and their degradation products. I. Liberation of mixtures of amino-acid esters from mixtures of their hydrochlorides, A., 963.  
 and Kondō, Toshio, terpenes, sesquiterpenes, and related compounds. I. Silicon compounds of menthol and the refractivity of silicon, A., 954.  
 and Shinoyama, K., terpenes, sesquiterpenes, and related compounds. II. Micro-method for mol. wt. determination using camphene as a cryoscopic solvent. III. Molecular depression of the f.p. of camphene. IV. Fusion diagrams of the systems camphene-naphthalene and camphene-diphenyl, A., 927, 1114.  
 and Takata, S., polycyclic compounds. I. Synthesis of porylene and its mechanism. II. Four new methods of preparing porylene and their mechanisms. III. Constitution of  $\alpha$ - and  $\beta$ -tetradecahydroperylenes formed by the hydrogenation of perylene under high pressure, A., 944.  
 Uchida, Y., vibrational and rotational structure of yellow-red emission band spectrum of sodium molecule, A., 1.  
 Udaondo, C. B., Schteingart, M., and Zanalda, D., inorganic sulphur of blood in azotamia, A., 1191.  
 Uddenberg, C. E. See Ohlsson, F.  
 Udo, S., taste of soya-bean. III. Change in quantity of succinic acid during fermentation. IV. Chemical constituents and taste, A., 532.  
 Udovenko, N. V. See Averkiev, N. D.  
 Udovichenko, V. V. See Mintz, I. B.  
 Udy, M. J., and Electro Metallurgical Co., chromic acid, (P.), B., 624.  
 Uebel, K. See Wislicenus, H.  
 Ueberrack, K. See Boller, R.  
 Ueda, F. See Noda, T.  
 Ueda, J. See Kōzu, S.  
 Ueda, Y., thermodynamic studies of lithium hydroxide and lithium chloride, A., 1247.  
 See also Ishikawa, F.  
 Uehling, E. A., and Uhlenbeck, G. E., transport phenomena in Einstein-Bose and Fermi-Dirac gases. I., A., 551.  
 Uemura, T., dependence on  $p_H$  of the ultra-violet absorption of hydroxyazo-compounds, A., 207. Ultra-violet absorption of hydroxyazo-compounds in aqueous solution and its relation to  $p_H$ . I., A., 336.  
 and Sueda, H., stick antimony electrode for measurement of  $p_H$ , A., 362.  
 Uemura, Y. See Arakatsu, B.  
 Ueno, A., and Murata, M., hormone content of the human anterior pituitary lobe, A., 322.  
 Ueno, J., Ota, Y., Tone, K., and Yokoyama, S., biological testing of vitamin-A, A., 195.  
 Ueno, Sei-ichi, Inagaki, G., and Koizumi, K., quality of Japanese fish oils and the hardened oil industry. III. Quality of herring oils. 2. IV. Quality of sardine oils. 2., B., 754, 797.

- Ueno, *Sei-ichi*, and Iwai, *M.*, chloriodo- and bromiodo-compounds precipitated from fish oils, B., 275.
- Okamura, *Z.*, and Kuzei, *N.*, fish oils as soap-making material. I. Preparation and properties of soap-making material [polymerised oils] from fish oils. II. (1) Components of treated oils and (2) the properties of soaps. III. Influence of various substances. IV. Influence of pressures, B., 797.
- and Yamasaki, *R.*, new compounds produced during hydrogenation of fish oils. IV. Fatty acids, B., 198.
- and Yukimori, *T.*, fish oils as soap-making material. V. Electrical conductivity of the soap solution of polymerised oils, B., 926.
- Ueno, *Shigezo*, and Sekiguchi, *H.*, determination of aromatic nitro- and nitroso-compounds, A., 1041.
- and Suzuki, *T.*, quinonaphthalene, B., 740.
- Ufford, *C. W.*, and Shortley, *G. H.*, atomic eigenfunctions and energies, A., 5.
- Ufimtzev, *V. N.*, and Uriupina, *N. N.*, preparation of filter-plates, B., 735.
- Uga, *Y.*, leech method of blood analysis. II. Potassium, A., 175.
- See also Yoshimatsu, *S.*
- Ugine-Infra Société Anonyme, [electric] induction furnaces, (P.), B., 112.
- Uglov, *V. A.*, Miller, *A. A.*, and Karkadinovski, *T. A.*, purification of drinking water by filtering through silvered sand, B., 94.
- Uhde, *F.*, fertilising materials, (P.), B., 405.
- Uhl, *A.*, field apparatus for electrical  $pH$  measurements [of soils], B., 321, 882.
- Uhlenbeck, *G. E.*, and Young, *L. A.*, value of  $e/m$  by deflexion experiments, A., 111.
- See also Uehling, *E. A.*
- Uhlenhuth, *P.*, and Remy, *E.*, carbohydrate antibodies; gum arabic, A., 1317.
- Uhlmann, *E.*, influence of diet on sensitivity of animal tissues to radiation, A., 1200.
- Uiberreiter, *G.*. See Suida, *H.*
- Ujiie, *S.*, maternal and fetal distribution of parathyroid and thyroid hormones, A., 539.
- Ukai, *T.*. See Bergmann, *E.*
- Ulibarri, *F. F.*, glutathione in normal blood and in cancer, A., 85.
- Ulrich, *H.*, peculiarities in the conductivity relations of non-aqueous solutions, A., 908.
- and Nesipal, *W.*, alkoxides and their molecular compounds. I., A., 901.
- See also Andrieth, *L. F.*
- Ulrich, *L.*. See Du Pont de Nemours & Co., *E. I.*
- Ulrich, *H.*. See Ruhland, *W.*
- Ulyot, *G. E.*. See Koelsch, *C. F.*, and Smith, *L. I.*
- Ulmann, *M.*, determination of osmotic pressures by isothermal distillation. II., A., 690. Shaking (thixotropy) effect with cellulose solutions followed by vapour-pressure measurements, A., 1117.
- and Hess, *K.*, influence of temperature on the state of solution of methylated carbohydrates, A., 147. Osmometric investigation of dilute solutions of polymeric carbohydrates. III. Changes in state in solutions of cellobiose, maltose, and "cellotriase," A., 492.
- See also Hess, *K.*
- Ulrich, *F.*, deposits of giobertite in Czechoslovakia and the present state of their exploitation, A., 1030.
- and Munk, *R.*, manganese mineral deposits in the Carpathians in the northwest of Czechoslovakia and their genesis, A., 1030.
- Ulrich, *W.*. See Lockemann, *G.*
- Ultée, *A. J.*, phytosterol from *Phyllanthus acidus*, Skeels, A., 1343.
- Ulvesli, *O.*. See Isaachsen, *H.*
- Umeda, *K.*. See Kosugi, *T.*
- Umeda, *Z.*. See Okada, *H.*
- Umetu, *K.*. See Ishihara, *Tominatsu.*
- Umstätter, *H.*, change of state of viscous systems. VII. Extension of theory to solid substances, A., 569. Anomalous velocity distribution in oil layers. II., A., 775. Slope of the viscosity-temperature function as an important criterion of the value of a lubricant, B., 850.
- Underhay, *G. F.*, hydration of cellulose, B., 381.
- Underhill, *F. A.*, Orten, *J. M.*, Mugrage, *E. R.*, and Lewis, *R. C.*, effect of prolonged milk-iron-copper diet on rats, A., 312.
- See also Geraghty, *G. B.*, and Orten, *J. M.*
- Underhill, *F. P.*, Jaleski, *T. C.*, calcium and potassium content of dog tissues and influence of thyroparathyroidectomy, A., 864.
- Underhill, *S. W. F.*. See Culhane, (*Miss*) *K.*
- Underwood, *A. J. V.*, theory and practice of testing stills, B., 127. Graphical computation of logarithmic mean temperature difference, B., 575. Design of fractionating columns for complex mixtures, B., 687.
- Underwood, *J. E.*, Cabell, *C. A.*, and Nat. Lime Assoc., lime mixture, (P.), B., 671.
- Ungar, *G.*. See Tinel, *J.*
- Ungemach, *O.*. See Auwers, *K. von.*
- Unger, *H. J.*, infra-red absorption bands of ammonia, A., 208.
- See also Norris, *W. V.*
- Unger, *I. F.*, syntheses of ketones by means of mixtures of acids and acid anhydrides, A., 952.
- Unger, *J. H.*. See McAlister, *E. D.*
- Unger, *L.*, Cromwell, *H. W.*, and Moore, *M. B.*, pollen and pollen extracts. VIII. Dialysability of pollen allergens, A., 179.
- Ungerer, *E.*, adsorption by colloidal clay, A., 564. Mechanical analysis [of soils] by the decantation and the pipette processes as affected by various pretreatments, B., 34. Exchange reaction of difficultly soluble carbonates with permutits, B., 118.
- Unichem Chemikalien-Handelsgesellschaft, Akt.-Ges., duplicating papers, etc., (P.), B., 743.
- Union Carbide Co. See Erickson, *A. N.*
- Union Carbide & Carbon Research Laboratories, Inc. See Quelch, *G. C.*
- Union Mills Paper Manufacturing Co. See Oblinger, *D. B.*
- Union Oil Co. of California. See Dunham, *R. A.*, Ott, *T. F.*, Pollock, *R. C.*, Ragatz, *E. G.*, and Subkow, *P.*
- Union Solvents Corporation. See Fernbach, *A.*
- Union Switch & Signal Co. See Grondahl, *L. O.*
- United Chromium, Inc. See Kirchner, *M.*
- United Feldspar Corporation. See Peddrick, *C. H., jun.*
- United Gas Improvement Co. See Perry, *J. A.*
- United Kingdom Oil Co., Ltd., and Forwood, *G. F.*, catalysts, more particularly for use in conversion of hydrocarbons into lighter hydrocarbons [by hydrogenation], (P.), B., 694.
- United Shoe Machinery Corporation and Merritt, *M. M.*, leather, (P.), B., 881.
- See also Mead, *B.*
- United States. See Conn, *W. T.*, Greenbank, *G. R.*, Hidnert, *P.*, Johnson, *S. P.*, and Robinson, *R. H.*
- United States Gypsum Co. See Gaskins, *E.*, and Linzell, *H. K.*
- U.S. National Bank of Portland. See Millington, *A. E.*
- U.S. Phosphoric Products Corporation. See Moore, *G. F.*
- U.S. Pipe & Foundry Co., and Langenberg, *F. C.*, ferrous alloys [stainless steels], (P.), B., 591.
- U.S. Radium Corporation. See Schlundt, *H.*
- U.S. Vanadium Corporation. See Deitz, *L. S., jun.*
- United Verde Copper Co. See Fowler, *M. G.*
- United Water Softeners, Ltd., Pemberton, *R. T.*, Lawrence, *H. S.*, and Austen-Walton, *J. I.*, water-softening plant, (P.), B., 48.
- Universal Alloys, Inc. See Grenagle, *J. B.*
- Universal Gypsum & Lime Co. See Nelson, *W. K.*
- Universal Oil Products Co., conversion of hydrocarbon oils, (P.), B., 694. Refining treatment of hydrocarbon oils, (P.), B., 853.
- and Delattre-Seguy, *J.*, treatment [cracking] of hydrocarbon oil, (P.), B., 1045.
- See also Alther, *J. G.*, Angell, *C. H.*, Benner, *H. P.*, Bergman, *D. J.*, Cook, *R. C.*, David, *A. D.*, Delattre-Seguy, *J.*, Dubbs, *C. P.*, Egloff, *G.*, Fairchild, *O. H.*, Faragher, *W. F.*, Gary, *L. J.*, Halle, *H. J.*, Heid, *J. B.*, Howard, *W. R.*, Huff, *L. C.*, Kirschbraun, *L.*, Lowry, *C. D., jun.*, Mekler, *L. A.*, Morrell, *J. C.*, Nagel, *R. E.*, Nelson, *E. F.*, Oberle, *A.*, Olsen, *N. S.*, Pollock, *R. T.*, Pyzel, *D.*, Smith, *M.*, Tears, *C. F.*, and Weber, *H. C.*
- Universal Steel Co. See German, *H. M.*
- Unkauf, *H. C.*. See Wise, *L. E.*
- Uno, *D.*, and Yosida, *S.*, temper-hardening of alloys. II. Abnormal phenomena during heat-treatment of silver-rich silver-aluminium alloys, B., 631.
- Uno, *S.*, bamboo. I. Relation between composition and strength, B., 63.
- Unozawa, *J.*. See Akiyama, *K.*
- Unsöld, *A.*, cosmic occurrence of the  $H^2$  isotope, A., 110.
- Untiedt, *F. H.*, gypsum-rubber composition, (P.), B., 708.
- Unwin, *T. F.*, fuel oil in metallurgical melting and heating practice, B., 50.
- Upolovnikov, *I. S.*, control of the production of synthetic ammonia, B., 864.
- See also Epstein, *D. A.*
- Upp, *C. B.*. See Westinghouse Electric & Manufg. Co.
- Upthegrove, *C.*. See Eash, *J. T.*
- Upson, *F. W.*. See Bonnett, *H. T.*, and Brackenbury, *J. M.*
- Urack, *H.*. See Beck, *K.*
- Urazovski, *S.*, and Senjuta, *N.*, determination of dynamic activity of adsorbents, A., 671.

- Urbach, C., micro-analysis of urine and blood by the step photometer. IX. Determination of ammonia in urine, A., 627. Photometric micro-analysis of drinking and service water. IV. Determination of phosphorus. V. Determination of phosphorus (method II). VI. Determination of magnesium. VII. Determination of calcium, B., 494, 734.
- Urbain, E., ammonium magnesium phosphatic fertilisers, (P.), B., 119.
- Urbain, G., oxidations and reductions of organic compounds, A., 803. Nature of valencies in organic chemistry, A., 1138.
- Urbain, O. M., and Lewis, C. H., releasing nascent hydrogen [in an aqueous medium], B., 786. Water-purification process, (P.), B., 942.  
See also Travers, J. T.
- Urban, P., relative impermeability of plastic sediments for rain-water, spring water, and alkaline solutions, A., 673.
- Urban. See Goroncy, C.
- Urban, F., and White, H. L., application of double-layer theory of Otto Stern. I., A., 122, 444.  
and Williams, R. D., acidic property of sugars. II., A., 464.  
See also White, H. L.
- Urbančzyk, W. See Marchlewski, L.
- Urbanskaja, O. S. See Lakomkin, I. G.
- Urbański, T., phenomena associated with detonation of explosives, A., 470. Thermal analysis of binary systems containing organic nitrates, A., 1119.  
See also Hackel, J.
- Urbański, W. S., validity of the Clausius-Mosotti law for emulsions, A., 123.
- Urech, P., mode of combination of silicon in aluminium or aluminium-silicon alloys, A., 1007. Determination of fluorine in insoluble fluorides, A., 1260. Colorimetric determination of phosphoric acid in argillaceous products, B., 345.
- Urechia, C. L., and Retezeanu, bromine in blood in manic depressive psychoses, A., 739.
- Urey, H. C., alternating intensities of Na<sub>2</sub> bands, A., 439.
- Urion, E. See Dupont, G.
- Urion, M.,  $\alpha$ , $\gamma$ -dimethyl- $\Delta^4$ -hexatriene, A., 371.  
See also Lespieau, R.
- Uriupina, N. N. See Ufimtzev, V. N.
- Urmánczy, A. See Kiss, A. von.
- Urmston, J. W. See Bates, S. J.
- Urquhart, A. R., and Eckersall, N., adsorption of water by rayon, B., 56.
- Urry, W. D., rare gases. I. Permeability of various glasses to helium. II. Diffusion of helium through crystalline substances and the molecular flow through rock masses, A., 20, 1008. Helium content of beryllium, A., 45. Radioactivity measurements. I. Radium content of the Keweenaw basalt and some accessory minerals. II. Occurrence of radium, uranium, and potassium in the earth, A., 1029.
- Usakiewicz, J. See Swientoslawski, W.
- Usanovitsch, M., and Rozentreter, P. G., electrochemistry of ethereal solutions. VII. Arsenic tribromide-methyl ethyl ether, A., 354.  
See also Kargin, V. A.
- Ushakov, M. I., and Zelinski, N. D., [preparation of] phenol from chlorobenzene, A., 267.
- Ushakov, S. N., and Alexandrova, R. S., solubility and swelling of ethylcelluloses in organic solvents, B., 300.
- and Obriadina, E. M., resinification of glycerol, B., 978.
- Usherwood, G. W., some aspects of plasticity and its determination [for rubber, etc.], B., 47.
- Ushio, H. See Nakamura, T.
- Usines de Melle, continuous separation [extraction] of a body [acetic acid] from its solution in a liquid, (P.), B., 11. Dehydration of [ethyl] alcohol, B., 122. Separation in the anhydrous state of fatty acids contained in dilute aqueous solutions, (P.), B., 140.  
and Boinot, F., alcoholic fermentation of sugar-containing liquids, (P.), B., 649.  
and Guinot, H. M., rectification of alcohol, (P.), B., 328, 935.
- Usoni, L., mechanical enrichment of beryllium ores, B., 351.
- Uspenski, A. P., composition of water of salt lakes of the Omsk district, A., 1028.
- Ust-Katschkintzev, V. F. See Anosov, V. Y.
- Ustinskaja, V. See Dijatschkovski, S. I.
- Ustvedt, H. J., rôle of iron in glycolysis of blood and muscle, A., 1202.
- Usyskin, I. D. See Laschkarev, V. E.
- Utermark, W. L., rubber-containing products of a mortar-like nature, (P.), B., 642.
- Utescher, K., classification of mineral soils with respect to particle-size distribution and content of alumina soluble in hydrochloric acid, A., 484.
- Utevski, A., Epstein, S., and Osinskaja, V., effect of hormones on enzyme action. I. Effect of insulin on blood- and liver-amylase, A., 985.
- Utica Hydraulic Cement Co. See Seaton, S. G.
- Utility Manufacturing & Sales Co. See Rubin, F. W.
- Utterback, C. L., variations in visible solar light during submarine measurements, A., 332.
- Utunomiya, E. See Miyamoto, Susumu.
- Uven, M. J. van, theoretical relationships between crop yields and manuring, and its experimental proof, B., 201.
- Uyemura. See under Uemura.
- Uyterhoeven, W., Bruynes, J., and Verburg, C., emission of light by a mixture of gases and vapours in the positive column of a luminous discharge, A., 760.
- Uzel, R., colorimetric determination of nitrites in water, B., 654.
- Uzumasa, Y., displacement of absorption bands of rare-earth salts, A., 661.
- Uzzle, A. B. See Baity, H. G.
- Vageler, P., Persian agriculture, B., 117.  
and Alten, F., investigation and classification of soils on physicochemical lines, A., 693. Agricultural value of important Dutch soils, B., 559.
- Vagi, G., perinuclear granules and reticulum. III. Chemical nature of the granules, A., 623.
- Vagranskaja, L. I. See Rubinstein, A. M.
- Vaidya, B. K., new infra-red band system of the CO molecule, A., 112.
- Vail, W. E. See Du Pont de Nemours & Co., E. I.
- Vainshtein, G. R., stability of lubricating oils, B., 454.
- Vaish, B. L., and Prasad, M., volumetric determination of potassium dichromate and potassium permanganate in a mixture, A., 479.
- Vaissier, P., Forrer magnetic separator and its applications, B., 674.
- Valaer, P., rapid determination of essential oil [in flavouring extracts], B., 652.
- Valasek, J., effect of chemical combination on the X-ray emission spectrum of sulphur, A., 549.
- Valdecasas, J. G. See Abderhalden, E., and Winter, K. A.
- Valensi, G. See Ligor Bay.
- Valenta, E., and Polořil, F., influence of silicon on critical points and constitution of chromium-iron alloys, B., 1059.
- Valentin, F. See Votoček, E.
- Valentin, H., decrease in transparency of old window glasses for ultra-violet rays, B., 147.
- Valentine, K. S., and Turbo-Mixer Corp., gas-scrubbing apparatus, (P.), B., 289.
- Valentiner, S., and Becker, G., magnetic properties of the system Mn-Cu-Al, A., 18. Susceptibility and electrical conductivity of copper-manganese alloys, A., 449, 765. Investigations of Heusler alloys, A., 767.
- Valentini, A., calculation of the e.m.f. of an element from osmotic data, A., 1015.
- Valenzuela, P. See Castro, R. R.
- Valiaschko, N. A., and Kosenko, K. G., action of chlorine on acetylene and preparation of tetrachloroethane and trichloroethylene, A., 47.
- Valier, (Mme.) P. See Wunschendorff, H.
- Valik, I. See Valik, L.
- Valik, L., and Valik, I., aromatic alcohols, (P.), B., 956.
- Valjavec, M., blood of rabbits in experimental sodium fluoride poisoning, A., 424.
- Valkó, E. See Meyer, K. H.
- Valla, (Mlle.) S. See Terrone, E. F.
- Valladares, M.,  $\gamma$ - and X-ray spectra of the thorium family, A., 443. Crystalline diffraction spectrography of  $\gamma$ - and X-rays of the radium family, A., 881.
- Valle, A. J., composition for treating trees and other vegetation, (P.), B., 681.
- Valle, E., beet marc, B., 761.
- Vallender, R. B. See Phelps, H. J.
- Vallisi, E. See Rabbano, A.
- Vallet, J., coke consumption in [iron] blast furnace, B., 348.
- Vallet, P., decomposition by heat of complex platinum salts, A., 242.
- Vallet, V. E. See Oliver, C. B.
- Valtis, J., and Deinsse, F. van, variation in character of tubercle bacilli derived from filtrable elements of the virus, A., 1334.
- Van Ackeren. See under Ackeren, van.
- Vanadium Alloys Steel Co. See McKenna, P. M.



- Vanadium Corporation of America. See Saklatwalla, B. D.
- Van Alstine, L. See McCullagh, D. R.
- Van Arendonk, A. M., Becker, B. C., and Adams, R., stereochemistry of diphenyls. XXXIII. Preparation and properties of 2:3'-dinitro-2':6'-dimethoxy-6-carboxylic acid and 2'-fluoro-2-nitro-6'-methoxydiphenyl-6-carboxylic acid, A., 1294.
- Cupery, M. E., and Adams, R., stereochemistry of diphenyls. XXXII. Preparation and properties of 2:6:2':6'-tetramethoxydiphenyls, A., 1294.
- Van Brunt, J. W. See Hamor, W. A.
- Vance, J. E., dissociation of water in strontium chloride solutions at 25°, A., 904.
- See also Brönsted, J. N., and Foote, H. W.
- Vancea, P. See Michail, D.
- Vandamme, J., radiochemical decomposition and synthesis of hydrogen iodide; radiochemical decomposition of hydrogen chloride, A., 238.
- Vandegrift, J. N., and Internat. Bitumenoil Corp., retort [for low-temperature distillation of carbonaceous materials], (P.), B., 293.
- See also Internat. Bitumenoil Corp.
- Vanderbilt Co., Inc., R. T., effect of captax (mercaptobenzthiazole) and altax (benzthiazyl disulphide) on zimate (zinc dimethyldithiocarbamate) acceleration [of rubber vulcanisation], B., 80.
- See also Alton, W. H., and Murrill, P. I.
- Van Derhoeft, H. E., and Eastman Kodak Co., cellulose nitrate film and similar products, (P.), B., 1004.
- Vanderwal, R. J. See Gilman, H.
- Vande Velde, A. J. J., adsorption of enzymes, A., 533. Culture media containing carbamides. V and VI, A., 537, 1252.
- Van Domselaar, B. B. See King, R. H.
- Van Dusen, M. S. See Meyers, C. H.
- Van Dyke, K. S., temperature variation of viscosity and of the piezoelectric constant of quartz, A., 1237.
- Van Dyke, R. H. See Kodak, Ltd.
- Vangelholici, M. See Minovici, S.
- Van Heuckeroth, A. W., yellowing of protective coatings, B., 29. Evaluation of physical tests in respect to durability of plasticised nitrocellulose films, B., 30. Influence of various ingredients on the yellowing of films, B., 976. Plasticiser absorption by pigments, B., 1068. Vehicles for luminous pigments, B., 1068. Lacquer liquids, B., 1068. Adhesion studies on exposed plasticised lacquers, B., 1068.
- Vanick, J. S. See Merica, P. D.
- Vanine, S. J., Andreev, I. E., and Vladimirska, (Mme.) N. N., house fungi and timber preservation, B., 917.
- Vanino, L., darkening of chromium oxide green at high temperatures, B., 977.
- Vaniš, F., process of fusion of grey cast iron, B., 1058.
- Vanjuschin, A. G., resistance of "kerasolith" to acids and alkalis, B., 623.
- Van Marie, M., and G. W. B. Electric Furnaces, electric furnaces [for continuous heat treatment of metal strip, etc.], (P.), B., 715.
- Vannah, H. P., and Brown Co., treatment of soils, (P.), B., 681.
- Van Natta, F. J. See Kraemer, E. O.
- Vanossi, R., and Ferramola, R., ceric salts in volumetric analysis, A., 138.
- Van Schaack, R. H., jun., Boehmer, N., and Van Schaack Bros. Chem. Works, Inc., purification of esters, (P.), B., 218.
- and Van Schaack Bros. Chem. Works, Inc., [preparation of] esters of secondary alcohols, (P.), B., 218. Drying of [organic] liquids by dialysis, (P.), B., 776.
- Van Schaack Bros. Chemical Works, Inc. See Calvert, R., and Van Schaack, R. H., jun.
- Vanscheidt, A., and Eremeeva, O., determination of lower alcohols in dilute aqueous solutions, A., 372.
- and Lozovsky, M., hydrolysis of ethyl ether, A., 1252.
- Vanselow, W. See Kodak, Ltd.
- Van Slyke, D. D., and Cope, C. L., simplified colorimetric determination of blood-urea clearance, A., 1181.
- Dillon, R. T., and Hiller, A., crystallisation of a compound of hemoglobin and carbon dioxide, A., 1315.
- and Kirk, E., comparison of gasometric, colorimetric, and titrimetric determinations of amino-nitrogen in blood and urine, A., 1316.
- and Kugel, V. H., use of Somogyi's filtrate to increase the specificity of the gasometric blood-sugar method, A., 1181.
- Page, I. H., and Kirk, E., manometric micro-method for determination of carbin in organic compounds, A., 1314.
- Van Vleck, J. H., and Whitelaw, N. G., quantum defect of non-penetrating orbits, with special application to Al II, A., 1221.
- See also Whitelaw, N. G.
- Van Vliet, P. D., and Air Control Systems, atomisation of liquids and absorbing by gases, or impregnating gases therewith, (P.), B., 848.
- Van Voorhis, C. C. See Ladenburg, R.
- Van Vorst, A. R. See Wray, R. I.
- Van Winsen, A. See Pidgeon, L. M.
- Vanyukov, V. A., treatment of concentrates at Nikitovski Mercury Combine, B., 970.
- and Korolyuk, V. Y., concentration of Turlansk oxidised lead ore on a Wilfley table, B., 309.
- Murach, N. N., and Genvarski, A. N., smelting precipitated fine tin dust, B., 392.
- and Ruikov, G. V., extraction of metal from slags containing zinc, B., 1061.
- Vanzant, F. R., Alvarez, W. C., Berkson, J., and Eusterman, G. B., changes in gastric acidity in peptic ulcer, cholecystitis, and other diseases, A., 1324.
- Osterberg, A. E., Alvarez, W. C., and Rivers, A. B., gastric pepsin. II. Secretion of pepsin in cases of duodenal ulcer and pseudo-ulcer, A., 1073.
- See also Osterberg, A. E.
- Vanzetti, B. L., structure of benzene nucleus, A., 385. So-called colloidal coal from carbohydrates. II, A., 1280.
- Várallyay, G., Aspergillus method [for evaluating soil phosphorus], B., 35.
- Varasova, E. N. See Palkin, A. P.
- Varcoe, R. J., drying floors for china clay, (P.), B., 62.
- Varela, B., and Esculies, J., determination of direct and indirect bilirubin in blood-serum, A., 175.
- Varencov, P. V. See Gribojedov, D. N.
- Vargha, L. von, isopropylidenehexuronic acid, A., 53. Triphenylmethyl derivative of vitamin-C, A., 490. Partial acetonisation of sugars and sugar alcohols. I. 1:2-isoPropylidene-d-glucofuranose 3:5-monoborate. III.  $\alpha\beta$ -isoPropylidene-d-mannitol and partly acylated derivatives of d-mannitol, A., 596, 1140.
- See also Müller, Alexander.
- Vargin, V. V., and Zhuk, N. B., urtic in glass-making, B., 306.
- Varlamov, V., oxidation of paraffin under pressure, B., 901. Separation of unsaponifiable matter from oxidation products of paraffin, B., 901.
- Varma, B. S. See Krishna, S.
- Varney, P. L., and Hetler, D. M., automatic pipette for accurate delivery of variable quantities of liquids, A., 480.
- Varney, R. N., non-existence of ion mobility spectrum in air, A., 109.
- Varney, W. W. See Grenagle, J. B.
- Vars, H. M. See Swingle, W. W.
- Varshavski, G. E., new method of welding the extra-hard alloy "pobedit," I., B., 672.
- and Vartametov, N. L., hard alloys used for drilling by the Azneft, B., 672.
- Vartametov, N. L. See Varshavski, G. E.
- Varvoglis, G. See Wieland, H.
- Vašíček, A. See Velišek, J.
- Vasiliev, A. A., and Schub, M. E., colorimetric determination of antimony in copper alloys, B., 792.
- and Tschurilina, Z. V., determination of phosphorus in copper and copper-zinc alloys, B., 792.
- Vasiliev, A. M., gasometric determination of potassium, A., 244.
- Vasiliev, A. P. See Rokitzkaya, A. I.
- Vasiliev, B. B. See Ahumov, E. I.
- Vasilieva, E. See Porai-Koschitz, A., and Tananaev, N. A.
- Vasilkov, D. V., hydrochloric acid and magnesium oxide from magnesium chloride, B., 144.
- Vasolex, I. S., volumetric determination of humus in soil, B., 81.
- Vásony, L. von, clarification of wine, B., 362.
- Vass, E. See Ruzicka, L.
- Vass, P. See Kiss, A. von.
- Vasserman, M. S., and Tratsch, E. L., utilisation of waste products from Rubeshnaja chemical works, B., 617.
- Vasserman, S. S., and Dilbek, L. G., utilisation of waste products for preparation of sulphur and of sulphide dyes, B., 747.
- Vasserman, S. S. See Vasserman, M. S.
- Vassiliou, A., detection of traces of iodides in presence of bromides and chlorides, A., 1260.
- See also Joannidis, D.
- Vassy, E. See Chalonge, D.
- Vastagh, G. See Schulek, E.
- Vatter, H. See Gehrts, A.
- Vaubel, E., form and function of synovial cells in tissue cultures. II. Production of mucin, A., 1195.
- Vaubel, R. See Tillmans, J.
- Vaughan, F. W. See Woollett, G. H.
- Vaughan, W. E., homogeneous thermal polymerisation of isoprene, A., 1249.
- Vaughn, T. H., trap bottle with automatic alarm, A., 248.  $\alpha$ -Iodo- $\Delta^4$ -pentinene, A., 486. Reaction of  $\alpha$ -iodoacetyl-enes; mercury acetylides, A., 1033.

- Vaughn, T. H. [with Spahr, R. J., and Nieuwland, J. A.], m.-p. curves of alkyl and acetylenic mercury derivatives, A., 1282.
- and Nieuwland, J. A., direct iodination of monosubstituted acetylenes, A., 694.  $\alpha$ -Iodo- $\Delta^2$ -butinene, A., 930.
- Vaupel, F. See Grube, G.
- Vaupotic, F. A., and Commercial Solvents Corp., vanishing cream, (P.), B., 684.
- Vavon, G., and Jakubowicz, (Mlle.) B., asymmetric syntheses by hydrogenation with platinum-black, A., 821. Cholestanols, A., 1047.
- Vavrinec, G., mineral analyses, A., 1268.
- Vazcane Process, Inc. See Vazquez, E. A.
- Vazquez, E. A., and Vazcane Process, Inc., recovery of by-products of sugar extraction, (P.), B., 887.
- Vear, J. G., corrosion of iron structures, B., 348.
- Veazoy, W. R. See Smith, Albert K.
- Vecchia, O. See Natta, G.
- Vecchiotti, L., and Piccinini, C., chemical reactions induced by light. IV. and V., A., 602, 915.
- and Silvestrini, C., formation of a heterocyclic ring closed through mercury atoms. III., A., 619.
- Vedder, E. B., antiscorbutic vitamin, A., 872.
- Vedenski, A. A., chemical equilibria of reactions between hydrocarbons. IV., A., 350.
- and Frost, A. V., chemical equilibria of reactions between hydrocarbons. III., A., 229.
- Veen, A. G. van, antineuritic vitamin from rice polishings. VIII. Polyneuritis in experimental animals, A., 1089.
- and Mertens, W. K., toxic bacterial pigment, A., 1206.
- Veen, D. van der, artificial disintegration, A., 334.
- Veenemans, C. F., determination of the optical constants from light-absorption measurements with thin metal films, A., 769.
- See also Claassen, A.
- Veenstra, W. A. See Jaeger, F. M.
- Vegard, L., structure of  $\beta$ -nitrogen and the different phosphorescing powers of the two forms of nitrogen, A., 107. Visible part of the Northern Light spectrum, A., 548. Phosphorescence of solid nitrogen and its relation to crystal structure, A., 886.
- Véghelyi, E., influence of iodine feeding on development of ewes and lambs and on yield and quality of wool, A., 632.
- See also Weiser, S.
- Veijola, P. See Sihvonen, V.
- Veikheartz, I., preparation of glyceryl mono- and di-stearates, A., 256.
- Veil, (Mlle.) S., rhythmic precipitation of dyes by electrolytes, A., 24. Periodic precipitation of mercuric iodide, A., 224. Rhythmic crystallisation due to diffusion of alkali carbonates in gelatin, A., 224. Radial precipitation of strontium carbonate, A., 674. Behaviour of dyes in two dimensions, A., 775. Properties of gelatin in an electric field, A., 1005. Discontinuous diffusion in gelatin, A., 1244.
- Veitch, W. W. See Parnall, J. B.
- Velculescu, A. J., and Cornea, J., detection of iodides with silver nitrate paper, A., 1260.
- See also Atanasiu, I. A.
- Velde, W. See Jores, A.
- Veldkamp, J., influence of lattice type and temperature on the fine structure of X-ray absorption edges. II., A., 760.
- Velichschinets, A. D. See Teletov, I. S.
- Velichkovski, A. V. See Lyubin, B. O., and Zelikman, I. F.
- Velikovski, A. S., and Pavlov, S. N., Sterilitamak crude oil, B., 1042.
- Velišek, J., calcium electrodes of the third order, A., 478.
- and Vašíček, A., calcium electrodes of the third order, A., 354. Electro-osmotic transport, and the electrokinetic potential of aqueous lithium, sodium, and potassium chlorides, and of potassium bromide and iodide, A., 1247.
- Velitschko, I. P. See Bochar, A. A.
- Veller, S. M., and Arutunian, A. C., adsorptive properties of Armenian volcanic rocks, A., 899.
- Vellinger, E., surface tension of caoutchouc solutions, A., 21. Application of the antimony electrode to measurement of  $p_H$  in acidimetric titration in aqueous and organic solutions, A., 1022. Superficial affinity of caoutchouc for fillers, B., 116. Potentiometric titration of acid in mineral oils with the antimony electrode, B., 374. Surface activity of mineral oils, B., 375.
- and Flavigny, R., physico-chemical properties of bitumen emulsions, B., 179.
- and Radulesco, G., interfacial tension of mineral oils treated with fuller's earth, B., 374. Photolysis of cracked oil, B., 659. Anti-oxidising constituents of cracking spirit, B., 773. Antioxidants and antioxidants of cracked [motor] spirit, B., 850.
- See also Weiss, H.
- Vello, L. S. See N. V. Maats. tot Beheer en Exploit. Van Octrooien.
- Velluz, L., action of salicylsalicylic acid on tetanus toxin, A., 191. Neutralisation of diphtheria toxin by heterocyclic compounds, A., 984. Determination of the ratio cholesterol esters to total cholesterol in blood-serum, A., 1065.
- and Sauleau, P., biochemical synthesis of fatty esters of cyclohexanols, A., 981.
- See also Debucquet, L., and Loiseleur, J.
- Velten, W., carbamylcholine. III. Action on gastric and uterine muscle; habituation or accumulation, A., 421.
- Veln, H., natural phosphates in cattle-feeding, A., 420.
- Vendt, V. P. See Gurevitch, V. G.
- Venkataraman, K., synthesis of chromones, A., 831.
- See also Chadha, T. O., Gulati, K. C., and Mahal, H. S.
- Venkataraman, S., measurement of viscosity by oscillating columns, A., 1135.
- Venkataraman, V., and Ahmad, N., examination of proposed relationship between the 1ca and single-thread test results [on yarns], B., 343.
- Venkataramiah, H. S. See Sibaiya, L.
- Venkatasubban, A. See Chakravarti, S.
- Venkatesachar, B., hyperfine structure and isotopes, A., 107. Hyperfine structures, A., 760.
- and Subbaraya, T. S., neutrons and magnetic nuclear moments, A., 1101.
- Venkateswaran, S., polarisation of light-scattering. II., A., 337.
- and Bhagavantam, S., Raman spectra of pinene, thiophen, salol, and thymol, A., 886.
- Venkov, N. I., determination of fat, cellulose, and waxy materials in poplar fibre, B., 858.
- Venosta, G. See Soc. Ital. Pirelli.
- Venturoli, G., chemico-toxicological study of adrenalin, A., 320.
- Venulet, F., and Goebel, F., origin of vitamin-D in the organism, A., 434.
- Venus-Danilova, (Mme.) E., and Danilov, S. N., hydration of primary acetylenic alcohols, A., 161.
- See also Danilov, S. N.
- Venuto, L. J. See Wiegand, W. B.
- Vepritzkaja, V. F. See Miloslavski, N. M.
- Ver, O. I., Skorshelletti, V. V., and Shultin, A. I., high-aluminium steel alloy, B., 65.
- and Smirnov, A. V., nitriding steel, B., 65.
- Smirnov, A. V., and Afonski, I. F., nitralloys of Soviet manufacture, B., 65.
- Verburg, C. See Uytterhoeven, W.
- Verbyla, A. E., preparation of pigment compositions, B., 556.
- Vercillo, A. See Marotta, D.
- Verderosa, J. M. See Du Pont de Nemours & Co., E. I.
- Verdino, A. See Lanyar, F.
- Verébely, T., von, mechanism of action of thyroxine, A., 642.
- Verein für Chemische & Metallurgische Produktion. See Blumenfeld, J.
- Verein Deutscher Holzstoff-Fabrikanten E. V., fibrous substance from wood fibres, (P.), B., 382.
- Verein für die Probier- & Forschungs-anstalt für Edelmetalle, prevention of tarnishing of the surface of silver and its alloys, (P.), B., 794.
- Vereinigte Aluminium-Werke Akt.-Ges., treatment of oxide coatings on aluminium and its alloys, (P.), B., 196. Production of oxide layers on aluminium, aluminium alloys, and objects constructed thereof, (P.), B., 235. Cast metal blocks, (P.), B., 352. Treatment of oxide-coated aluminium and aluminium alloy surfaces, (P.), B., 396.
- Verein. Deutsche Metallwerke Akt.-Ges., [zinc containers for] electric dry cells, (P.), B., 397.
- Verein. Dents. Metallwerke Akt.-Ges. Zweigniederlassung Basse & Selve, normalising ternary and multiple alloys containing copper and nickel, (P.), B., 834.
- Verein. Glanzstoff-Fabriken Akt.-Ges., manufacture of superior quality artificial silk in high yield by the wet-spinning process, (P.), B., 143. [Drying] of artificial filaments with uniform shrinkage, (P.), B., 302.
- Verein. Glühlampen & Elektrizitäts Akt.-Ges., coating metal bodies [radio-valve filaments] with one or more alkaline-earth carbonates, (P.), B., 72. Large-crystallised metallic bodies, (P.), B., 196. Manufacture and use of light-metal alloy, (P.), B., 795.
- Verein. Kugellagerfabriken Akt.-Ges., structural materials for bearings and other machine parts, (P.), B., 63.
- Verein. Stahlwerke Akt.-Ges., [alloy steel for apparatus for] cracking of hydrocarbons, (P.), B., 52. Obviating or reducing cold-shortness in steels containing phosphorus, (P.), B., 111.

- Verein. Stahlwerke Akt.-Ges., [steel for apparatus used in] cracking hydrocarbons, (P.), B., 138. Operation of cupola furnaces, (P.), B., 195. Recovery of sulphur from spent gas-purifying masses, (P.), B., 227. [Cobalt-iron] alloys for permanent magnets, (P.), B., 272. Electrolytic production of iron, (P.), B., 313. Treatment of iron ores, scrap iron, or other ferruginous substances, (P.), B., 313. Steels for objects exposed to wear, (P.), B., 394, 472. Treating iron or steel or their alloys for use for apparatus exposed to the action of hydrogen or gases containing same at elevated temperature and pressure, (P.), B., 472. Improving the deep-drawing power of sheet metal and steel strip intended for deep drawing, (P.), B., 511. Elimination of arsenic and antimony from iron ores and manganese ores, (P.), B., 873. Treatment of cobalt-tungsten alloys, (P.), B., 874.
- and Kühn, P., manufacture of steels and alloy steels, (P.), B., 1063.
- See also Brandt, L.
- Veress, Z. von, and Kreybig, R. von, glass, (P.), B., 20.
- Vergasungs-Industrie Akt.-Ges., generators for producing a mixture of water-gas and coal gas, (P.), B., 851.
- Verhaeghe, J., Faraday effect of camphorquinone, A., 448. Intensity relations in the cadmium spectrum, A., 548.
- Verhulst, J., crystal structure of potassium nitriropentachloro-osmate and of Schlippe's salt, A., 1235.
- and Glorieux, C., ethylenic nitriles;  $\alpha$ -methyl- $\Delta^{\alpha}$ -octenonitriles and  $\alpha$ -hexylacrylonitrile, A., 56.
- See also Merckx, R.
- Verkade, P. E., and Coops, J., jun., alternations in properties of *N*-monoalkylmalonic acids; Malkin's views concerning the alternation phenomena, A., 559. Calorimetric researches. XX. Alternation phenomena. VI. Alternations in the properties of *n*-monoalkylmalonic acids, A., 935.
- Elzas, M., Lee, J. van der, De Wolff, H. H., Verkade-Sandbergen, A., and Sande, D. van der, fat metabolism. I., A., 417.
- and Hartman, H., calorimetric researches. XXI. Heats of combustion of methyl-, ethyl-, and phenyl-substituted succinic acids and of their anhydrides, A., 1247.
- and Lee, J. van der, fat metabolism. II., A., 742.
- Verkade-Sandbergen, A. See Verkade, P. E.
- Verkhovtzev, M. P., removal of copper from Ridder crude lead, B., 310.
- Verma, M. R., and Mathur, R. N., diamagnetism of bismuth and antimony in the colloidal state, A., 1011.
- Vernet, J. J., solution ferri albuminata, B., 764.
- Vernadski, V., oceanography and geochemistry, A., 691. Chemical study of aluminosilicates, A., 369.
- Vernay, J. B., thickening filters, (P.), B., 608.
- Vernazza, E. See Montemartini, C., and Stratta, R.
- Verne, J., and Sannié, C., toxic action of cations on fibroblasts cultivated *in vitro*, A., 747. Action of metallic salts on tissue cultures *in vitro*, A., 1329.
- See also Achard, C.
- Vernitz, L., and Kudinova, A., testing resistance of metals under conditions of carbon tetrachloride production, B., 872.
- Vernon, C. C., flame shield, A., 250.
- Rebernak, A., and Ruwe, H. H., nitration of 4:4'-dichlorodiphenyl, A., 57.
- Vernon, E. L., and Daniels, F., kinetics of the unimolecular dissociation of gaseous ethyl bromide, A., 469.
- Vernon, M. A., Naeser colour pyrometer, B., 367.
- Vernon, W. H. J., green patina on copper and its alloys, (P.), B., 633. Role of corrosion product in atmospheric corrosion of iron, B., 920. Green patina on copper; examples from Elan Valley (Wales) and Dundalk (Ireland), B., 921.
- Vernotte, P., natural convection of heat in air for small differences of temperature; comparison of limit value of convection with conductivity of medium, A., 218.
- See also Filiâtre, L.
- Verő, J., equilibrium diagram of copper-tin-phosphorus alloys, A., 896.
- Verplancke, G., influence of disinfection on fertility of soil, B., 517.
- Verschaffelt, J. E., Nernst theorem, A., 453. Displacement of chemical equilibrium by mass changes, A., 1118, 1244. Law of displacement of chemical equilibrium, A., 1244.
- Versluys, J., conditions under which gas and liquid mixtures rise, B., 944. Principles of gaslift, B., 944.
- Verstraete, B. See De Ceuster, P.
- Versuchs- und Lehranstalt für Brauerei in Berlin. See Glaubitz, M.
- Verté, L., utilisation of anthracite of La Thuile, B., 337. Tests in Germany on distillation of coals by the Verté process, B., 531.
- Verver, C. G. See Saal, R. N. J.
- Vervloet, A. W., [arsenical poisoning from] dangerous wall coverings, A., 747.
- Vervoort, B., articles manufactured from alloys of iron and chromium, (P.), B., 591.
- Verwey, E. K. W., double layer of silver iodide sol., A., 567.
- Verwiebe, F. L., radiation from canal-ray impact, A., 882.
- Verzár, F., Arvay, F. von, Peter, J., and Scholderer, H., bilirubin metabolism. I. Erythropoiesis at high altitude, A., 309.
- See also Ludany, G. von.
- Veselovski, A. A. See Efremov, N. N.
- Vesely, V., and Chudožilov, L. K., determination of unsaponifiable matter in fats, B., 973.
- and Štursa, F., 7-hydroxy-1-methylnaphthalene, A., 708. Preparation of azo-dyes from brominated  $\beta$ -naphthol, A., 946. Derivatives of 1-phenylnaphthalene, A., 1285.
- Vesper, H. G. See Craise, F. L.
- Vesper, M., chloride content of urine of diseased and healthy cattle with special reference to tuberculous cattle, A., 629.
- Vesselkina, V. M., changes in phosphate fractions and glycogen of muscle in fasted cats and in diabetes without and after insulin, A., 431. Changes in distribution of muscle-phosphorus and -glycogen in fasting cats and in cats with experimental diabetes mellitus with or without administration of insulin, A., 628.
- Vesselovski, B. K. See Britzke, E. V., and Kapustinski, A. F.
- Vestine, E. H. See Lang, R. J.
- Veszélka, J., equilibria in alloyed bronzes. I. Cu-Ni-Sn system. II. Lead-tin bronzes, A., 1111.
- Veszelszky, L. See György, E. von.
- Veszi, G. See Bogdandy, S. von.
- Vetter, H. See Hieber, W.
- Vezekényi, L., artificial wood composition, (P.), B., 590.
- Vial, J. See Vincent, C.
- Viala, M., and Blanchard, E., arsenicals in fruit culture, B., 518.
- Viale, G., adrenalinamia and adrenalinuria, A., 1210. Significance of the adrenal cortex in metabolism of carbohydrates, A., 1336.
- Viazkova, S. A. See Rodionov, V. M.
- Vickers, A. E. J., permeability of refractory materials to gases, B., 917.
- Sugden, J. A., and Bell, R. A., thermionic potentiometer for measurement of  $p_H$ , A., 44. Apparatus for continuous recording of  $p_H$ , A., 248.
- Vickers-Armstrongs, Ltd., and Parker, L. D., grinding mills, (P.), B., 335.
- and Wardle, J., apparatus for straining liquids or gases, (P.), B., 3, 370.
- Vickery, H. B., and White, Abraham, use of cysteine cuprous mercaptide in determination of cystine, A., 382.
- See also Pucher, G. W.
- Victor Chemical Works, phosphorus, (P.), B., 786.
- See also Lindberg, N. C., Noyes, H. F., Waggaman, W. H., Weigel, R., and Woodstock, W. H.
- Victoria Vegyeszeti Művek R.T., [manufacture of] pigments, paints, and similar coating compositions and putty [from bauxite], (P.), B., 238.
- Vidacovitch, M. See Santenaise, D.
- Vidal, I. S., non-splintering glass, (P.), B., 628, 670.
- Vidal, O. See Garcia-Blanco, J.
- Vidal, R., method of solubilising fatty substances, (P.), B., 477.
- Vidin, E. K. See Girshovich, N. G.
- Viditz, F., preparation of the optically active forms of secondary butyl alcohol, A., 591. Pharmacology of optically active secondary butyl alcohol, A., 1328.
- Vieböck, F., determination of mercury in grey mercury ointment, B., 171. [Pharmacopoeial methods], B., 331.
- Vieillefosse, R. See Dufraisse, C.
- Vieles, P., rotatory power of active dilactamide, A., 889.
- Vierling, K. See Günther, F.
- Vietórizs, J., influence of recrystallisation on mild steel rolled below its critical range, B., 150.
- Viets, F. H., and Internat. Precipitation Co., apparatus for visual measurement of concentration of suspended material in gases, (P.), B., 717.
- Vieweg, H. F., some effects of grain size of china clays, B., 268.
- Vieweg, V., physical properties and structure of lubricating films, B., 293.
- Vigezzi, E., boric acid and borax in the leather industry, B., 758.
- Vigliani, C., behaviour of natural and artificial cements on long keeping [in water], B., 468.
- Vignes, H., and Lévy, M., acid-base equilibrium and pregnancy, A., 1191.
- Vignolo-Lutati, F., flavone compounds of woods, their fluorescence and relations with tannins, B., 802.

- Vignos, J. C., and Rubber Service Labs. Co., [inhibitor for] preserving metal [iron] surfaces [during pickling], (P.), B., 195.
- Vigoureux, P., and Watts, S., temperature coefficient of the standard Weston cell, A., 367.
- Vigzol Oil Refining Co. (London), Ltd., and Bilton, P., apparatus for testing the lubricating properties and values of oils, (P.), B., 378.
- Viking Manufacturing Co. See Erickson, J. A.
- Viktorin, O., electrolytic transport of water in 0.1N-lithium, -sodium, and potassium bromide, A., 1247.
- See also Baborovsky, J.
- Viktorov, P. P., and Bloch, Z. S., use of an acid in boiling of silk fabrics, B., 663.
- and Zitler, G. I., effect of mercerisation on fastness of dyeing, B., 666.
- Vila, A., substitutes for red lead and industrial paints, B., 478.
- Vilette, H. See Lecoq, R.
- Vilikovský, V., conditions of production and composition of fermentation slop from Czech distilleries, B., 935.
- Villanueva, L. S. See Lumang, H. E.
- Villela, G. G., micro-extractor for determination of cholesterol in blood, A., 1181.
- and Silva, C., lipins of normal [human] plasma, A., 1181.
- Villelte, H. See Lecoq, R.
- Villey, J., thermodynamic analysis of electromotive forces, A., 338.
- Villiers, E. G. See Gen. Electric Co.
- Vilnyanski, Y. E., and Banniuh, Z. S., graphic calculations in carnallite technology, B., 304.
- Banniuh, Z. S., and Haidukov, N., vacuum evaporation of magnesium chloride solutions, B., 145.
- Vilsmeier, G., influence of lime content of soil on determination of phosphate requirements by the *Aspergillus* method, B., 883.
- See also Niklas, H.
- Vilter, F. W., and Schmidt, O., examination of eggs [by ultra-violet light], B., 889.
- Vinal, G. W., and Craig, D. N., viscosity of sulphuric acid solutions used for battery electrolytes, B., 752.
- Craig, D. N., and Snyder, C. L., composition of grids for positive plates of storage batteries as a factor influencing the sulphation of negative plates, B., 835.
- and Howard, M. L., effect of glass containers on the e.m.f. of Weston normal cells, A., 1121.
- Vincent, C., and Vial, J., quantity and fat content of milk during milking in women, A., 1187. Milk and fat secretion during lactation in women, A., 1319.
- Vincent, H. L., materials used in manufacture of tracing paper, B., 186.
- Vincent, J., emulsified oils for lubrication of cylinders of hot steam locomotives, B., 901.
- Vincent, M., solution phenomena in granite soils of Brittany, A., 1031. Humic matter in soils of Brittany; determination and importance as nitrogen reserves, B., 35.
- Vincent, V., magnesian fertilisers, B., 402.
- Vincke, E., determination of boric and citric acids in nickel[-plating] baths, B., 872.
- See also Moser, Hanns.
- Vinet, E. See Moreau, L.
- Viney, (Miss) I. E., asymptotic expansions of the expressions for partition function and rotational specific heat of a rigid polyatomic molecule for high temperatures, A., 206. Rotational specific heat of a polyatomic molecule for high temperatures, A., 894.
- Vineyardists, Inc., removal of tartaric acid and tartrates from grape juice, must, and wine, (P.), B., 442.
- Vinogradov, A. P., vanadium in certain organisms, A., 1067.
- Vinogradova, E. N., conductimetric determination of dilute solutions of alkaloids and of morphine in commercial opium, B., 652.
- Vinogradski, S., microbiology of the soil. VII. Nitrifying organisms, A., 537. Evolution of ammonia by the nodules of the roots of *Leguminosae*, A., 989.
- See also Sakharov, G. L.
- Vinti, J. P., dispersion and absorption of helium, A., 199. Energies and wave-functions of the state  $(1s)(2s)S$  in helium-like atoms, A., 206. Continuous absorption spectrum of helium, A., 1219.
- and Morse, P. M., variable-scale atomic wave functions, A., 444.
- Vintilescu, J., and Bibesco, J., [composition of] ovaries of various animals and of commercial ovary powders, A., 83.
- and Ioanid, N., biochemical synthesis of  $\alpha$ -butylene glycol- $\beta$ -glucoside, A., 93. Carbohydrates of some species of the genus *Vinca*, and variation in their proportions during growth; the vincosides, A., 328.
- Violle, H., bactericidal power of sodium ricinoleate, A., 1208.
- Viollier, R., and Iselin, E., detection of "sionon" in diabetic foods, B., 1083.
- Virabyan, R. A., and Govakov, V. Y., detonation of narrow cuts of paraffin-base gasoline, B., 994.
- Virgin, E., and Klusmann, E., carotenoids of hen's egg-yolk after carotenoid-free feeding, A., 195.
- Virginia Smelting Co. See Binns, F. W.
- Virnik, D., and Fedotova, O., comparative physicochemical and mechanical properties of liquid and solid bone glue, B., 881.
- Virtanen, A. I., preservation of vitamins of the fodder of cattle, A., 434. A.I.V. method of preserving fresh fodder, B., 890.
- and Hausen, S. von, effect of yeast extract on growth of plants, A., 1093. Organic nitrogen compounds as plant nutrients, B., 243.
- Hausen, S. von, and Karström, H., legume-bacteria and plants. XII. Utilisation by non-leguminous plants of the nitrogen compounds from the root-nodules of leguminous plants, A., 437.
- and Nordlund, M., preparation of dihydroxyacetone, A., 595.
- Nordlund, M., and Hollo, E., fermentation of glucose by legume bacteria, A., 752.
- and Pulkki, L., effect of agar-agar on growth of *Aspergillus niger*, A., 535.
- and Saastamoinen, S., nitrogen fixation by alders (*Alnus*), A., 543.
- and Suomalainen, P., lipases in the animal organism. I., A., 981.
- and Voinvienti-Osunslike Valio R. L., preservation of green [cattle] fodder, (P.), B., 171. [Preservative for] preventing growth of micro-organisms, particularly mould and yeast, in perishable goods, (P.), B., 521.
- Vischering, G. F. von D. zu, investigation of wave radiation from radium-D by the Wilson chamber method, A., 883.
- Vischnievski, N. A. See Gorschein, G. I.
- Vischnjakov, M. N. See Salkind, J. S.
- Viscose Co., delustrated rayon, (P.), B., 103. Delustrated cellulose acetate yarn, (P.), B., 301.
- Visking Corporation. See Henderson, W. F., and Voss, J.
- Visscher, M. B. See Ingraham, R. C.
- Viswanath, K. S. See Joshi, Shridhar S.
- Vita, M. G., and Bracaloni, C. L., physicochemical properties and solubility in ethyl alcohol of egg-yolk oil, A., 1066.
- Vita, N., importance of density of illumination in photochemical reactions, A., 791. Temperature coefficient of the photochemical oxidation of HI, A., 791. Yield of photochemical reactions using complex light compared with that using the component lights, A., 791.
- and Salmoiraghi, E., effect of colloids on saccharification of cellulose, B., 166.
- and Sandrinelli, R., utilisation of atmospheric nitrogen by germinating seeds of leguminous plants. III., A., 103.
- Vitale, T., determination of xanthate-sulphur and of "impurity" sulphur of viscose, B., 57.
- Vitamin Co. of America. See Alexander, E. R.
- Vitek, V., polarographic determination of oxygen contained in industrial gases and waters, B., 963.
- Vitovec, F. J., jun., windshield for Saybolt viscosimeter, A., 690.
- Vitte, G., rapid detection of diethylbarbituric acid and phenylethylbarbituric acid in neural substance, A., 185. Presence and detection of diethylbarbituric acid in cerebrospinal fluid, A., 1198. Nitrosopine, A., 1300.
- Vittori, C., calorimetric determination of calcium hydroxide in puzzuolana mortars and hardened puzzuolana cements, B., 508.
- Vitu, M. See Dubsky, J. V.
- Vivas, F. S., and Internat. Fireproof Products Corp., surface-sealing compound or stain [for timber, etc.], (P.), B., 356.
- Vizern and Guillot, J., detection of diacetyl in fats improved by butter aromas, B., 155.
- Vladesco, R., and Popesco, M., urea content of saliva, A., 299.
- Vlădescu, I., chemical composition of Rumanian tobacco, B., 411.
- Dimofte, N., and Zaporojanu, I., influence of period of transplanting on quality of tobacco from the chemical viewpoint, B., 403.
- Vladimirska, (Mme.) N. N. See Vanine, S. I.
- Vlainatz, G. See Leko, A.
- Vlasenko, B. E., Muzuichenko, A. P., and Meshcherikov, V. V., preparing bright stocks from Emba crude oil, B., 210.
- Vlasova, (Mme.) M. M. See Remezov, N. P.
- Vlassuk, P. A., increase of yield by chemical treatment of sugar-beet seed, B., 804.
- Vlček, A., and Teige, K., two co-existent phases, A., 456.
- Vlès, F., and Gex, (Mlle.) M., physicochemical reaction modified by electrical connexion with the earth, A., 1254.
- Vles, S. E., determination of velocity of hydrolysis of acid anhydrides by the aniline-water method. I., A., 1250.

- Vlodrop, *C. van*. See Waterman, *H. I.*
- Vlugter, *J. C.*, Waterman, *H. I.*, and Westen, *H. A. van*, improved methods of examining mineral oils, B., 292.
- Vnuk, *H.*, faults in printing paper and their detection, B., 960.
- Voano, *V. G.*, methods for calculating the "working interval" of glasses, B., 749.
- Vodret, *F. L.*, and Gallo, *M.*, separation and determination of copper and nickel, A., 799.
- Vögele, *P.*. See Schmid, *Alfred*.
- Voegtlin, *C.*, Kahler, *H.*, and Fitch, *R. H.*, action of parenteral administration of sugars on  $p_H$  of normal and malignant tissues in living animals, A., 975.
- Maver, *M. E.*, and Johnson, *J. M.*, relation between oxygen tension and protein synthesis in tissue extracts, A., 309. Influence of oxygen tension on the reversal of proteolysis (protein synthesis) in malignant tumours and normal tissues, A., 864.
- Voet, *A.*, and Balkema, *F.*, reversal of lyotropic series in flocculation experiments, A., 567.
- See also Büchner, *E. H.*
- Voge, *H. H.*. See Hall, *N. F.*
- Vogel, *A. I.*, substituted  $\beta$ -diphenyladipic acids and derivatives of chryceno, A., 503. Syntheses of cyclic compounds. X. Thermal decomposition of substituted glutaric acids. I.  $\beta$ -Dimethylglutaric, cyclopentane- and cyclohexane-1:1-diacetic acid; mechanism of reaction, A., 1049.
- and Jeffery, *G. H.*, limiting mobilities of univalent ions and the dissociation constant of acetic acid at 25°, A., 127.
- See also Jeffery, *G. H.*
- Vogel, *C. P.*. See Orthmann, *A. C.*
- Vogel, *F.*, nepheline as raw material for production of aluminium, B., 233. Recovery of copper from foundry waste, (P.), B., 510.
- Vogel, *H.*, and Stohl, *M.*, terpenoid ring systems. I. Synthesis of a substance with blue antimony trichloride reaction, A., 1055.
- Vogel, *O.*, history of Nordhausen sulphuric acid, B., 746.
- Vogel, *R.*, explanation of structure of meteoric iron by means of the diagram of state of the ternary system iron-nickel-phosphorus, A., 140.
- and Baur, *H.*, system iron-ferrous sulphide-manganese sulphide-manganese, B., 630.
- See also Winkler, *K.*
- Vogel, *W.*, tanning effect of sulphite-cellulose [waste] extracts, B., 980.
- See also Gansser, *A.*
- Vogel, *W. L.*, and Prutzman, *P. W.*, quinoline-benzoic-carboxylic [2-o-carboxyphenylquinoline-4-carboxylic] acid, (P.), B., 251. Alkali salts of mercuribromo-fluorescein, (P.), B., 251.
- Vogel-Jørgensen, *M.*, wet grinding of raw cement material, (P.), B., 149. Plants for mixing and rendering homogeneous [dry] pulverulent materials, (P.), B., 688. Rotary kiln [for burning cement, etc.], (P.), B., 829.
- Vogelfanger, *I.*, occurrence of acetylcholine in ox-blood, A., 410.
- Vogels, *H.*, automatic apparatus for electrometric titration, A., 686.
- Voges, *F.*, improvement of X-ray quantitative chemical analysis, A., 340.
- Vogt, *C. C.*. See Pieper, *E. J.*, and Smith, *D. F.*
- Vogt, *E.* (Tübingen), relation between growth vigour of tumours and their vitamin-A content, A., 851.
- Vogt, *Eckhart*, dia- and para-magnetism of metals, A., 11. Interpretation of Weiss' law, A., 340. Magnetism of metals, A., 342. Susceptibilities of paramagnetic solutions, A., 1002.
- Vogt, *Egon*. See Hunsdiecker, *H.*
- Vogt, *H.*. See Grube, *G.*
- Vogt, *H. G.*. See Hudson, *J. C.*
- Vogt, *R. R.*. See Spahr, *R. J.*
- Vogt, *W.*, investigation of radioactive minerals with the Geiger-Müller counter, A., 250.
- Vogt Machine Co., *H.*. See Bryant, *G. R.*
- Voicu, *J.*, and Niculescu, *M.*, biochemical action of boron. II. Influence of boric acid on alcoholic fermentation and production of lactic acid by yeast, A., 316.
- Voigt, *G. Q.*, colour determination of any object, (P.), B., 717.
- Voigt, *H.*, determination of lead, copper, and zinc in [iron] ores and pyrites cinder, B., 508.
- Voigt, *J.*. See Cassel, *H.*
- Voigtman, *E. H.*. See Kress, *O.*
- Voinov, *B. P.*, crude-oil distillation curves, B., 210.
- Voinvienti-Osuusliike Valio R. L. See Virtanen, *A. I.*
- Voith, *L.*. See Mosonyi, *J.*
- Voitkevich, *I. I.*, and Terpugov, *A. V.*, determination of "harmful nitrogen" in sugar beets, B., 86.
- Voituret, *K.*. See Hansen, *C. J.*
- Voitzekhovski, *V.*. See Soloviev, *N. S.*
- Vojtatzakis, *E.*, double iodide amines, A., 132.
- Vokes, *F. C.*, treatment and utilisation of [sewage] sludge, B., 990.
- Volante, *M. A.*. See Cummings, *L. W. T.*
- Volarovitch, *M.*, thermal expansion of the binary liquid system  $\text{Na}_2\text{B}_4\text{O}_7\text{-B}_2\text{O}_3$ , A., 1240.
- See also Derjaguin, *B.*
- Volchin, *A. E.*, preparation of naphthols AS, AS-BS, and AS-BO, B., 421.
- Vold, *R. D.*, and Washburn, *E. R.*, solutions of ethyl alcohol in cyclohexane, in water, and in cyclohexane and water, A., 19.
- Volfkovitch, *S. I.*, gypsum and "phosphogypsum," B., 913.
- and Belopolski, *A. P.*, oxidation of sulphites. I.—III., A., 234.
- and Zirlin, *D. L.*, oxidation of ammonium sulphite and preparation of ammonium sulphate from gaseous sulphur dioxide, ammonia, and water vapour, A., 573.
- Volfson, *S. I.*, investigation at elevated temperatures of types of steel manufactured by the Izhorski mill, B., 709.
- Volk, *N. J.*, formation of muscovite in soils, and refinements in sp. gr. separations, A., 929.
- Volkmann, *E. W.*. See Amer. Tar Products Co.
- Volkmann, *H.*. See Stuart, *H. A.*
- Volkmann, *M.*. See Mezger, *O.*
- Volkonsky, *M.*, conditions of culture and synthetic power of *Saprolegnia* sp.; carbon, nitrogen, and sulphur nutrition, A., 752. Assimilation of sulphates by fungi: eutrophism and paratrophism, A., 1214.
- Volklinger, *H.*, Raman effect and its application to mineral chemistry, A., 998.
- See also Médard, *L.*
- Vollenbruck, *O.*. See Bauer, *O.*
- Voller, *D. H. P.*, determination of bromide in mixtures of silver chloride and bromide, A., 686.
- Vollmer, *H.*, [therapeutical] adsorbing and neutralising substances, A., 90.
- See also Eisner, *H.*, and Schröder, *V.*
- Vollmert, *F.*. See Garre, *B.*
- Volmar, *Y.*, and Betz, emetics derived from lactic acid, A., 376. Emetics derived from mandelic and malic acids, A., 948.
- and Duquénou, fixation of  $\text{Sb}_2\text{O}_3$  by monohydroxy-monoacids, A., 1142.
- and Leber, (*Mlle.*) *M.*, picrolonic acid, a reagent for alkali metals, A., 583.
- and Mathis, inhibiting action of certain ions on the fluorescence of the uranyl ion and its applications to inorganic chemical analysis, A., 924.
- Volmer, *M.*, theory of cathodic evolution of hydrogen, A., 1122. [Electrochemical] process of recording electric impulses, (P.), B., 72.
- and Bogdan, *M.*, collision activation and homogeneous catalysis of decomposition of nitrous oxide in foreign gases, A., 680.
- and Froehlich, *H.*, thermal decomposition of nitrous oxide, A., 30. Thermal decomposition of nitrous oxide; effect of helium, argon, and oxygen, A., 30.
- Volvov, *J. N.*. See Dolgov, *B. N.*
- Volodkevitch, *N.*, "electric diffusion" of ions in gases with unipolar charge, A., 333. Electrical diffusion of ions in gases of bipolar charge, A., 994.
- Volqvartz, *K.*. See Brönsted, *J. N.*
- Volski, *A. N.*, Agracheva, *R. A.*, and Serebrennikova, *N. G.*, application of the Waelz process to Karabash (Russia) copper-zinc ores and mixed concentrates, B., 1061.
- Vonderlinn, *H.*. See Hesse, *E.*
- Vondrák, *J.*, dampening of white sugar in store, B., 326. Diffusion [of beet juice], B., 567. Mannitic fermentation of beet fodders, B., 811. Influence of superheating on determination of invert sugar by Herzfeld's method, B., 1029. Loss of food value during storage of fresh beet slices in silos, B., 1033. Composition of waste waters from [beet-sugar] factories, B., 1088.
- and Nemes, *T.*, incrustations in evaporators [in beet-sugar factories], B., 325.
- Vonk, *H. J.*, Roelofsen, *P. A.*, and Romijn, *C.*, influence of bile on tryptic digestion *in vitro*, A., 864.
- Voogd, *N. H. J. M.*, hydrates of cerium sulphate and the inverse fusion points, A., 897.
- Voogt, *G.*, and Shell Development Co., recovery of oil-soluble sulphonic compounds formed in acid-refining of mineral oils, (P.), B., 998.
- Voorhes, *V.*, and Standard Oil Co., anti-knock gasoline, (P.), B., 10. Separation of wax from oil, (P.), B., 538.
- Youtz, *M. A.*, and Standard Oil Co., concentration of olefines, (P.), B., 853.
- See also Rogers, *T. H.*
- Voorhies, *G. B.*, and Federal Milk Co., spray-drying apparatus, (P.), B., 575.
- Vorhes, *F. A., jun.*, statistical treatment for establishing the accuracy of methods of interpreting analytical results with special reference to egg products, B., 364.

- Vorländer, D., systems with mixed dimensions, A., 1108. Supercrystallinity of *p*-azoxybenzoic acid, A., 1108. Polymorphism of liquid crystals; demonstration, A., 1108. LiquocrySTALLINE resins and lacquers, A., 1108. *cyclopentanone* and *cyclohexanone*, A., 1163.
- and Dalichau, G., m.p. and b.p. of potassium perchlorate, A., 1237.
- and Fischer, Josef, mechanical double refraction of oils in relationship to the molecular form and association. III., A., 10.
- Vorobieva, A. F. See Tschelincev, V. V.
- Voronov, A. S. See Kogan, L. M.
- Voroshchov, N. N., and Gribov, K. A., photo-sensitive nitro-compounds. I., A., 386.
- and Koslov, V. V., photo-sensitive nitro-compounds. II. *pp'*-Dinitrophenyl disulphide; 1-nitronaphthalene-2-sulphonic acid, A., 386.
- See also Tschitschibabin, A. E.
- Vorwald, A. J. See Donaldson, L. C.
- Vorwerk, J. See Schlubach, H. H.
- Vosburgh, W. C., Connell, (Miss) L. C., and Butler, J. A. V., electrostriction produced by salts in aliphatic alcohols, A., 1011.
- See also Metler, V., Priepke, R. J., and Tarbutton, G.
- Voskressenskaja, N. K., tensimetric analysis of the systems manganous sulphate-water and alkali alumino-oxalates-water, A., 229.
- Vosnessenski, S., and Skvortzov, V., oxidation of colloidal-dissolved substances. II., A., 916.
- Voss, A. H. See Western Electric Co.
- Voss, H., investigations of the influence of a magnetic field on dielectric constants of argon and oxygen by means of a new resonance method, A., 1103.
- Voss, J., and Visking Corp., preparing tubular bodies from cellulose, (P.), B., 743.
- Voss, K. See Gerngross, O.
- Voss, W., conditions for occurrence of the Ramsauer effect, A., 882.
- Voskühler, H. See Grube, G.
- Votoček, E., and Valentin, F.,  $\beta$ -phenylethylpyrazolones, A., 514.
- Votteler's Nachfolger G.m.b.H., J., artificial leather, (P.), B., 912.
- Vournazos, A. C., [metallic] mercuribromozonides, A., 239.
- Vovsi, B. A. See Salkind, J. S.
- Vozdvishenski, M. D. See Bachmetev, E. F.
- Voznaya, A. See Vadimov, V.
- Vrabely, V. See Zechmeister, L.
- Vranjican, D. See Krajčinović, M.
- Vreeswijk, J. A., jun. See Orstein, L. S.
- Vriart, M., possible formation of glucose from lecithin, A., 183.
- Vroonen, E., carbon of cast iron, B., 869.
- Vuigovski, G., application of activated carbon in the decolorisation of glycerol, B., 876.
- Vuishnepolskaya, F. See Markman, A.
- Vuisotskaja, V. A. See Rakovski, E. V.
- Vykoupil, K., evaporators, (P.), B., 256.
- W.
- Wachholtz, F., formation of blue and violet stains on white paints, B., 276.
- See also Wilborn, F.
- Wachi, G. See Aizawa, T.
- Wachter, A., thermodynamic properties of solid solutions of gold and silver, A., 126.
- Wachter, F. C. See Keefer, C. E.
- Wacker, L., exchange of materials between muscle, blood, and liver during work, A., 88.
- Wacker Ges. für Elektrochemische Industrie G.m.b.H., aromatic [hydr] oxycarboxylic acids, (P.), B., 183. Manufacture of esters from aldehydes, and of catalysts suitable for use thereon, (P.), B., 296. Printing colours, (P.), B., 667. Cleaning of fibrous materials, textiles, articles of clothing, etc., (P.), B., 782. 3-Methylal-3-oxy- $[\gamma$ -aldehyde- $\gamma$ -hydroxy]methyl-*n*-pentano, (P.), B., 906.
- See also Ascherl, A.
- Waclaw, F., distillation of Württemberg oil shale, B., 900.
- Wada, B., and Iida, T., isolation of organic acids produced by decomposition of green manure, B., 1027.
- Wada, I., and Ishii, R., determination of vanadium in steel, B., 65.
- Wada, Midzu. See Kuroda, (Miss) C.
- Wada, Mitsunori, isolation of citrulline,  $\delta$ -carbamido-ornithine, from tryptic digestion products of caseinogen, A., 172. Amines from amino-acids, A., 616. Polysyn,  $\alpha$ -amino- $\delta$ -hydroxyantoinvaleric acid, a new decomposition product of protein. I., A., 620.
- and Hayama, N., formation of carbamide from polysyn, citrullin, hydantoins, and protein by action of hydrogen sulphide, A., 1063.
- Wada, S. See Kondo, S.
- Waddington, C. H., heterogony and the chemical ground-plan of animal growth, A., 305.
- Waddington, G. See Ramsperger, H. C.
- Wade, G. See Smith, N. W.
- Wade, W. B. See Sherwood, R. C.
- Wadehn, F., effect of growth-promoting hormone on the mouse, A., 98. Separation of male sexual hormone from female sexual hormone (follicular hormone), A., 1338.
- Wadewitz, M. See Erlanger, A. L.
- Wadleigh, W. H., viscosity of optical glass, B., 915.
- Wadsworth, A., and Brown, Rachel, chemical and immunological studies of *Pneumococcus*. III. Cellular carbohydrate fractions, A., 1207.
- Wadsworth, D. V., Wickenden, L., and Naugle, J. J., preparation and handling of sugar syrups containing invert sugars, (P.), B., 246.
- Wadsworth, G. W. See Borgen, H.
- Wadsworth, J. M., treatment of natural gas, (P.), B., 181.
- Wadsworth Watch Case Co. See McFarland, J. C.
- Wächter, H. See Neuber, F.
- Waegeningh, J. E. H. van. See Heesterman, J.
- Waelhert, M., and Hanel, R., martensitic cast iron, B., 1059.
- Waelsch, H., natural melanins, A., 177.
- and Weinberger, E., blood-glutathione in fever, A., 415.
- Waentig, P., cellulose from linseed straw, B., 222.
- Waerden, B. L. van der. See Infold, L.
- Waeser, B., sulphuric acid plant. I. Burner gas. II. Chamber design and methods of intensification. III. Towers and their equipment. IV. The contact process, B., 144, 225.
- Wagenaar, M., microchemical detection of novocaine, A., 173. Reaction of caffeine with iodine-potassium iodide solution, A., 844. Microchemical detection of coumarin, A., 844, 1180. Microscopical and microchemical examination of Egyptian pigments, A., 1027. Microscopical detection of fructose, A., 1146. [Microscopical] staining of various kinds of strophanthus seeds with sulphuric acid, B., 91. Identification of atoxyl, B., 332. Coloration of lignin by benzidine salts, B., 382. Anaesthetics (ethyl *p*-aminobenzoate), B., 411. [Microchemical] identification of salvarsan [derivatives], B., 892.
- Wagenitz, E. See Schlubach, H. H.
- Wagenmann, K. See Endell, K.
- Waggaman, W. H., Easterwood, H. W., and Victor Chem. Works, phosphorus and compounds thereof, (P.), B., 18.
- Gooch, S. D., and Coronet Phosphate Co., reduction of phosphoric materials, (P.), B., 386. Production of phosphorus and phosphoric acid, (P.), B., 785.
- Gooch, S. D., Kerschbaum, F. P., and Coronet Phosphate Co., protection of phosphorus, (P.), B., 669.
- and Oberphos Co., preparation of [phosphatic] fertiliser, (P.), B., 728.
- See also Gooch, S. D.
- Wagner, A. See Baborovský, J.
- Wagner, C., nature of electrical conductivity of a-silver sulphide, A., 556. Theory of formation of surface films on metals, A., 564. Interpretation of electrolytic part of conduction in amalgams and other alloys. II., A., 571. Theory of thermo-electric cells consisting of combinations of semiconductors, A., 887. Theory of ordered mixed phases. III. Misplacement phenomena in polar compounds as the basis of ionic and electronic conduction, A., 888. Electron and lattice disarrangement in crystalline polar compounds as basis for electronic and ionic conduction, A., 1000.
- See also Baumbach, H. H. von, and Dünwald, H.
- Wagner, C. R., and Gyro Process Co., heat exchanger, (P.), B., 96. Separation and fractionation of [hydrocarbon] oil, (P.), B., 500.
- and Pure Oil Co., treatment of hydrocarbon oils, (P.), B., 138.
- See also Osterstrom, R. C.
- Wagner, E. C., reduction of Schiff bases. III. Condensations of *sec*-aromatic amines with formaldehyde in acid solution; nuclear or *N*-methylations by formaldehyde, A., 387.
- and Simons, J. K., head for laboratory fractionating columns, A., 690.
- See also Simons, J. K.
- Wagner, F., effect of unbalanced salt treatments on growth and yield of cultivated plants, B., 644.
- Wagner, F. W., and McIntire, F. L., motor fuel from light oil, (P.), B., 695.
- Wagner, Günther. See Simon, H.
- Wagner, Gustav, and Lippert, L., detection of sodium chloride lattice in caesium chloride, A., 768.



- Wagner, G. H., and Aluminum Co. of America, concrete articles, etc., (P.), B., 388.  
See also Aluminium, Ltd.
- Wagner, Hans, swelling of pigmented films, B., 114. Separation of the original tar from road-tar emulsions, B., 179. Chemistry of road tar and road-tar emulsions, B., 496. Structure of inorganic pigments, B., 718.
- and Haug, R., structure of zinc- and alkaline-earth chromates, B., 676.
- and Heintz, G., electrolytic pigment corrosion, B., 315.
- and Kolb, H., determination of zinc in aluminium and its alloys, B., 23.
- and Zipfel, M., surface microscopy, A., 44.
- Wagner, Heinrich, course of growth of potato plants. V., A., 988. Growth processes in oats during water shortage and in early-sown winter wheat. IV., A., 988.
- Wagner, H. W. See Sturtevant Eng. Co.
- Wagner, J. See Gorr, G.
- Wagner, O., preparation of *allocholesterol* hydrochloride, A., 710.
- Wagner, R., behaviour of Traube's cells under the influence of the electric current, A., 1010.
- Wagner, Richard. See Bergel, F.
- Wagner, R. C. See Kruger, P. G.
- Wagner, W. See Balz, O., and Kutzelnigg, A.
- Wagner, W. E., and Western Cartridge Co., propellant powders, (P.), B., 493. [Explosive] double-base powders, (P.), B., 846.
- Wagner-Jauregg, T., chemistry of the vitamins, A., 872.
- and Ruska, H., flavins as biological hydrogen acceptors, A., 1183.
- and Werner, L., formation and inversion of cholesteryl ether, A., 271.  
See also Almasy, F., György, P., and Kuhn, R.
- Wagstaff, E. A. See Shaw, B. D.
- Wagstaff, R. A., and Amer. Smelting & Refining Co., centre-wall furnace, (P.), B., 495.
- Wahl, C. V. See White, J. H.
- Wahl, H., chlorine derivatives of *p*-xylene, A., 815.
- Wahl, M. H. See Rodebush, W. H.
- Wahlberg, E., derivatives of  $\beta$ -keto- $\gamma\gamma$ -dimethylvaleric acid, A., 145.
- Wahlin, H. B., emission of positive ions from metals, A., 1098.
- Fritsche, O. O., and Oesterle, J. F., refractory materials for melting pure metals, B., 1056.  
See also Fritsche, O. O.
- Wahlstrom, O. W., destructive distillation and carbonisation of waste matter, (P.), B., 950.
- Waibel, F., quantitative spectrum analysis. I. Physical principles and methods, A., 800.
- Waide, J. B., jun. See Cannon, C. Y.
- Waisówna, I. See Smoleński, K.
- Wait, G. R., absence of a permeability anomaly for iron from the wave-length region between 84 and 1300 m., A., 893.
- Wait, J. F., and Nat. Aniline & Chem. Co., increasing the apparent density of organic compounds before fusion with caustic alkali, (P.), B., 219.  
and Sun Oil Co., method of heat transfer, (P.), B., 2, 768.
- Waitz, R. See Chabrol, E.
- Wajcenblit, L. See Swientoslawski, W.
- Wajzer, J. See Behrens, B.
- Wake, J. F., rotary mixers, (P.), B., 688.
- Wakeham, G., and Johnston, C. B., effect of strong ultra-violet irradiation on the toxicity of pure nicotine, A., 632.
- Wakeman, A. M., and Morrell, C. A., chemistry and metabolism in experimental yellow fever in monkeys. VI. Bromsulphalein liver function test and the van den Bergh reaction, A., 181.
- Wakeman, R. L. See Ruzicka, L.
- Wakerlin, G. E., and Bruner, H. D., [absence of] pressor substance in the blood in essential hypertension, A., 972.
- Wakker, C. H., auriferous deposits in neighbourhood of Saint-Yrieix, A., 483.
- Waksman, S. A., distribution of organic matter in the sea bottom and chemical nature and origin of marine humus, B., 935.
- and Allen, M. C., decomposition of polyuronides by fungi and bacteria. I. Decomposition of pectin and pectic acid by fungi and formation of pectolytic enzymes, A., 1082.
- and Iyer, K. R. N., chemical nature and origin of humus. III. Base-exchange capacity of "synthesised humus" (ligno-protein) and of "natural humus" complexes. IV. Fixation of proteins by lignins and formation of complexes resistant to microbial decomposition, B., 758.
- and Kirsh, D., butyric acid and butyl alcohol fermentation of hemicellulose- and starch-rich materials, B., 985.
- and Purvis, E. R., influence of moisture on rapidity of decomposition of low-moor peat, B., 81.
- Walburn, L. E., sterile injection medicine, B., 410.
- Wald, G., vitamin-A in the retina, A., 1087.
- Wald, H., psychrometer without artificial aeration, A., 249.
- Waldbauer, L., and Gantz, E. St. C., quantitative spectrographic studies of co-precipitation. II. Group II elements with barium sulphate, A., 1133.
- Waldeland, C. R., Zartman, W., and Adkins, H., hydrogenation of derivatives of diphenyl, A., 1294.
- Walden, G. B., and Lilly & Co., E., therapeutic compound [for anemia], (P.), B., 765.
- Walden, G. H., jun., Hammett, L. P., and Chapman, R. P., phenanthroline-ferrous ion: a reversible oxidation-reduction indicator of high potential and its use in oxidimetric titrations, A., 924.
- Walden, P., incomplete dissociation of typical binary salts and application of dilution law to their solutions in non-aqueous solvents. II., A., 25.
- and Audieth, L. F., conductivity measurements in aniline, A., 784.
- and Birr, E. J., conductivity measurements in nitro-compounds. I. Conductivity measurements in nitromethane. II. Conductivity measurements in nitrobenzene. III. Behaviour of electrolytes in nitro-compounds, A., 467. Conductivity measurements in acetophenone, A., 784. Conductivity measurements in cyclohexanone, A., 784.
- and Hilgert, H., anhydrous hydrazine as an ionising medium for electrolytes and non-electrolytes. I. Behaviour of typical electrolytes and half electrolytes, A., 907.
- Waldman, E. H., electrode and method for welding cast iron, (P.), B., 714.
- Waldmann, H. See Ruzicka, L.
- Waldorp, C. P., Andrews' diazo-reaction and Becher's xanthoproteic reaction in the blood, A., 1191.
- Waldron, L. R., yield and protein content of hard red spring wheat under conditions of high temperature and low moisture, B., 1031.
- and Mangels, C. E., protein content, water absorption, loaf volume, and loaf weight of two series of hard red spring wheats, B., 89.
- Waldschmidt, E. See Radio-A.-G. D. S. Loewe.
- Waldschmidt, M. H., fusion study of the high-felspar area in the felspar-kaolin-quartz system, B., 428.
- Waldschmidt-Leitz, E., chemical nature of enzymes, A., 1080.
- and Köhler, Franz, specificity of kidney-phosphatases, A., 425.
- and Kofrányi, E., complex nature of "crystalline pepsin," A., 636.
- and McDonald, E., enzymes in tumours. I., A., 1070.
- and Purr, A., enzymic amyolysis. III. Amylokinase, A., 187.
- and Schäffner, W., enzyme content of pancreas-substitute preparations, A., 427.
- Scharikova, A., and Schäffner, A., influence of thiol compounds on enzymic processes, A., 315.
- Weil, L., and Purr, A., regulation of intracellular protein and carbohydrate metabolism by thiol, A., 528.  
See also Calvery, H. O.
- Walerstein, I., non-Ritzian nature of the  $^{252}\text{S}$  terms of mercury, A., 880.
- Waluszis, J. B. See Hochwalt, C. A.
- Walke, H., existence of a neutron of mass 2, A., 995.
- Walker, A. See Fonda, G. R.
- Walker, A. C., effect of atmospheric humidity and temperature on relation between moisture content and electrical conductivity of cotton, B., 583.
- and Quell, M. H., naturally-occurring ash constituents of cotton; distribution of ash constituents as salts and changes resulting from washing in aqueous solutions, B., 500. Influence of ash constituents on electrical conduction of cotton, B., 500.
- Walker, A. M., composition of aqueous humour, cerebrospinal fluid, lymph, and blood from frogs, higher animals, and man, A., 849. Composition of glomerular urine. X. Inorganic phosphate in glomerular urine from frogs and neecturi, A., 849.
- Ellinwood, E. H., and Reisinger, J. A., glucose and phosphate concentrations in blood-plasma, glomerular fluid, aqueous humour, cerebrospinal fluid, and lymph, A., 84.
- and Reisinger, J. A., composition of glomerular urine. IX. Reducing substances in glomerular urine from frogs and neecturi; action of phloridzin, A., 849.  
See also Richards, A. N.
- Walker, A. W., mixer, (P.), B., 688.
- Walker, B. S., and Walker, E. W., organic fraction of urinary phosphorus, A., 413.
- Walker, C. B., and Wraith, H. O., means for regulating, controlling, or ascertaining the calorific value of mixed gases, (P.), B., 214.

- Walker, E. W. See Walker, B. S.
- Walker, Frederic, anhydrous formaldehyde, A., 937.
- Walker, Frederick, albitite from Ve Skerries, Shetlands, A., 141.
- Walker, G. B. See Christmann, L. J.
- Walker, H. G., and Anderson, L. D., control of the harlequin bug (*Murgantia histrionica*, Hahn), B., 484.
- Walker, H. H., aération train for study of products of bacterial metabolism, A., 189. Carbon dioxide as a factor affecting lag in bacterial growth, A., 318.
- and Winslow, C. E. A., metabolic activity of the bacterial cell at various phases of the population cycle, A., 190. See also Winslow, C. E. A.
- Walker, H. L. See Drier, R. W.
- Walker, H. W. See Du Pont de Nemours & Co., E. I., and Williams, I.
- Walker, J., refractory service, with particular reference to boiler furnaces, B., 190.
- See also Hodgson, H. H.
- Walker, J. C., relation of soil fertility to incidence of *Aphanomyces* root rot of peas, B., 566.
- and Empire Oil Refining Co., method and reagent for treating wet oils, (P.), B., 535. Treatment of wet [petroleum] oils, (P.), B., 538.
- Walker, J. P., drip basin for fluid separators, (P.), B., 96.
- Walker, M., and Pacific R. & H. Chem. Corp., stabilisation of liquid hydrocyanic acid, (P.), B., 266.
- Walker, (Miss) M. K. See Johnston, Herrick L.
- Walker, O. See Karrer, P.
- Walker, P. H., and Hickson, E. F., paint for priming plaster surfaces, B., 156.
- Walker, R. See Mottern, H. H.
- Walker, R. H., and Anderson, D. A., effect of nitrogen source on oxygen consumption by *Rhizobium*, A., 638. Comparative growth rates of different strains of *Rhizobium meliloti*, A., 752.
- and Brown, P. E., effects of various amounts of calcium carbonate on degree of saturation of Iowa soils with bases, B., 726.
- See also Willis, W. H., and Young, A. W.
- Walker, T. K., and Hastings, J. J. H., preservative principles of hops. XIV. Development of antiseptic constituents of hops and of tannin during ripening. XV. Gravimetric determination of the antiseptic constituents of hops, B., 203, 984.
- See also Robinson, F. A.
- Walker, Ltd., W. & F., and Freestone, J. T., [apparatus for] sterilising the atmosphere of rooms or enclosed spaces, (P.), B., 366.
- Wall, C. L. See Bleachers' Assoc.
- Wall, M. P. See West, L. B.
- Wall, W. A. See Kidd, R. L.
- Wallace, B. F., compound for use in casting metals, (P.), B., 395. Sand core for casting metal, (P.), B., 924.
- Wallace, E. L., and Kanagy, J. R., influence of sodium chloride and magnesium sulphate on hydrolysis of leather by sulphuric acid, B., 481.
- See also Bowker, R. C.
- Wallace, E. W., and Dyke, H. B. van, cumulative poisoning by squill derivatives and ouabain, A., 1076.
- Wallace, F. J., and Robeson Process Co., adhesive cement, (P.), B., 33.
- Wallace, H. V., loss of oxygen in cyanide solutions [for gold solution], B., 110.
- Wallace, L. A. See Roberts, R. W.
- Wallace, T., and Proebsting, E. L., potassium status of soils and fruit plants in cases of potassium deficiency, B., 680.
- and Zilva, S. S., antiscorbutic activity of apples, A., 872.
- See also Knight, L. D. W.
- Wallace & Tiernan Co., Inc., and Orchard, W. J., means for diffusing gas into liquid, (P.), B., 97.
- Wallace & Tiernan Products, Inc. See Baker, J. C.
- Wallagh, G. See Wibaut, J. P.
- Wallbach, G., iron resorption, A., 1326. Histology and chemistry of iron metabolism, A., 1326.
- Wallbaum, L. See Wolff, H.
- Walle, R., tensile properties of steel, cast steel, and cast iron in the cold, B., 750.
- Wallen-Lawrence, Z. See Dyke, H. B. van.
- Waller, A., chlorine consumption in bleaching sulphite pulps, B., 459.
- Waller, D. S., metabolism of carbohydrate, A., 180.
- See also Newburgh, L. H., and Wiley, F. H.
- Waller, E. K. See Smith, W. E.
- Waller, I., magnetisation of paramagnetic crystals in alternating fields, A., 117.
- Wallerius, G., composition of the waste acid as a factor in manufacture of nitroglycerin, B., 1087.
- Wallerius, I. D., altered pyrophyllite, A., 589.
- Wallerstein, L., and Wallerstein Co., degumming of silk, (P.), B., 264, 663. Invertase preparations, (P.), B., 281.
- Wallerstein, M., and Wallerstein Co., chocolate syrup, (P.), B., 170.
- Wallerstein Co., Inc. See Wallerstein, L., and Wallerstein, M.
- Walles, E., Chappuis bands of ozone and the boric acid spectrum, A., 336.
- Wallin, B., use of animal dung on grassland, B., 517.
- Wallin, V. V., burners for [flameless] catalytic combustion [of gaseous or vaporised fuels], (P.), B., 51.
- Wallingford, V. H. See Homeyer, A. H.
- Wallis, E. S., and Adams, F. H., spatial configuration of the valencies in tricovalent carbon compounds, A., 1167.
- and Dripps, R. D., molecular rearrangements involving optically active radicals. III. Lossen rearrangement of optically active hydroxamic acids, A., 606.
- and Moyer, W. W., molecular rearrangements involving optically active radicals. IV. Hofmann rearrangement of the amide of an optically active 2:2'-disubstituted 6-carboxydiphenyl, A., 821.
- See also Adams, F. H.
- Wallis, J. S., tray construction for fractionating towers, (P.), B., 449.
- and Foster Wheeler Corp., oil fractionation, (P.), B., 854.
- Wallis, N. J. H. See Farmer, E. H.
- Walls, H. J. See Melville, H. W.
- Wallschitt, H. See Schenck, E. G.
- Wallsom, H. E., elimination of dust and sulphur from boiler flue gases, B., 415.
- Walsdorff, A. See Garre, B.
- Walsh, D. A., sugar crystalliser, B., 842.
- Walsh, E. L., etiology of gallstones, A., 1189.
- Walsh, J. F., and Celluloid Corp., dental plate base, (P.), B., 978.
- Ximenez, M. R., and Celluloid Corp., moulding powder, (P.), B., 1020.
- Walsh, W. F. See Carpenter, D. C.
- Walsko, J. See Sinclair Refining Co.
- Walston, H. D., hysteria in dogs, A., 972.
- Waltenberg, R. G., Holbrook, H. E., and Brenner, B., [ruthenium] alloy, (P.), B., 70.
- Holbrook, H. E., Brenner, B., and Wilson Co., H. A., [platinum-iridium] alloy, (P.), B., 70.
- Walter, A., dyeing of paper, B., 224.
- Walter, E., does treatment with carbon cause analytical changes in spirits? B., 521.
- Walter, E. M., reduction of toxicity of insulin, A., 431.
- Walter, G., and Glück, A., constitution of artificial resins. III. Hardenable and non-hardenable arylsulphonamide-formaldehyde resins; hardenability in general, B., 639.
- and Lutwak, H., constitution of artificial resins. V. Hardenable benzenetri-sulphonamide-formaldehyde resin; behaviour of phenolsulphonamides and arylsulphonanilides in condensation with formaldehyde, B., 639.
- and Storfer, E., constitution of artificial resins. IV. Resins of arylsulphonamidocarbamides; behaviour of aryl-dicarbamides in condensation with formaldehyde, B., 639.
- Walter, Hans. See Deuts. Gold- & Silber Scheideanstalt vorm. Roessler.
- Walter, Herbert, and Bukatz, P., plastic substance for cleaning walls, etc., (P.), B., 21.
- Walter, J. J., crude oil distilling apparatus, (P.), B., 100.
- Walters, J. W. See Robertson, T. B.
- Walter, R. R., sintered alloys, (P.), B., 310. Alloy of azotised character, (P.), B., 394.
- Walter, W. H., cores [for metal-casting], (P.), B., 474.
- Walter-Lévy, (Mme.) L., analysis of carbonates and hydrocarbonates of magnesium, B., 345.
- Walters, I. G., electrocapillary experiments, A., 1121.
- Walters, J. W. See Robertson, T. B.
- Walther, B., and Wattenwyl, H. von, effect of adrenaline on tissue respiration, A., 1085.
- Walther, E., control of *Dendroctonus valens*, Lec., B., 1074.
- Waltl, A. See Levene, P. A.
- Walton, A. See Shutt, W. J.
- Walton, C. F., jun. See Fort, C. A.
- Walton, C. L. See Kearns, H. G. H.
- Walton, E. See Morgan, G. T.
- Walton, E. T. S. See Cockroft, J. D., and Dee, P. J.
- Walton, G. P., and Gardiner, R. F., fertiliser material, (P.), B., 279.
- Walton, J. H. See Haring, R. C.
- Walton, R. P., and Segura, C. M., immunological reaction to the enzyme papain, A., 176.
- Walton, S. F., and Exolon Co., protective refractory glaze and method of applying it to refractory bodies containing silicon carbide, (P.), B., 428. Abrasive flours, (P.), B., 670.
- and Patent & Licensing Corp., preparation of non-weathering glazed aggregate, (P.), B., 268. Preparation of non-weathering pigment, (P.), B., 276.

- Waltz, *E. J.*, chromium plating, (P.), B., 835.
- Waltz, *J.* See Goiffon, *R.*
- Waly, *A.* See Thaddea, *S.*
- Walzel, *R.*, mechanical ageing of mild ingot steel, B., 231.
- Wambacher, *H.* See Blau, *M.*
- Wan, *S.*, composition of bones of vegetarian and omnivorous rats, A., 625. [H<sup>+</sup>] of gastro-intestinal contents of vegetarian and omnivorous rats, A., 1068.
- Wang, *A. B.*,  $\beta$ -naphthol derivatives. I. Preparation and identification of some  $\beta$ -naphthol ethers, A., 1157.
- Wang, *G. H.* See Chou, *T. Q.*
- Wang, *H.* See Neumann, *B.*
- Wang, *K. C.* See Meitner, *L.*
- Wang, *P. C.* See Adolph, *W. H.*
- Wang, *T. H.*, suitability of Chinese pines and *Chamaecyparis* from Fukien Province, China, for pulp and paper manufacture, B., 859.
- See also Sah, *P. P. T.*
- Wang, *T. Y.* See Adolph, *W. H.*
- Wang, *Y.*, and Wu, *H.*, use of albino rats for the assay of the male sex hormone, A., 1085.
- Wanklin, *A.*, bricks, blocks, tiles, etc., (P.), B., 965.
- Wannack, *C. O.*, and S. H. G., Inc., carburetted air gas, (P.), B., 820.
- Wantz, *J. B.* See Brit. Thomson-Houston Co.
- Warbritton, *V.* See Manery, *J. F.*
- Warburg, *O.*, and Christian, *W.*, new oxidation enzyme, A., 313. Yellow oxidation enzyme, A., 424, 533, 979. Oxygen-transporting enzyme of lactic acid bacilli, A., 753.
- and Negelein, *E.*, spectroscopic detection of the oxygen-carrying enzyme in acetic bacteria, A., 862.
- Negelein, *E.*, and Haas, *E.*, spectroscopic detection of cytochrome and of the oxygen-carrying enzyme, A., 1329.
- Warcollier, *G.*, and Le Moal, *A.*, determination of ethyl alcohol in vinasses, B., 281.
- Ward, *A. L.*, Jordan, *C. W.*, and Fulweiler, *W. H.*, gum deposits in gas-distribution systems. I. Liquid-phase gum (contd.), B., 6.
- Ward, *A. M.*, quantitative removal of ferric chloride from aqueous solution, A., 249.
- See also Fleck, *H. R.*
- Ward, *A. N.* See Dunlop Rubber Co.
- Ward, *D.* See Imperial Chem. Industries.
- Ward, *H. L.* See Western Electric Co.
- Ward, *J. M.* See Crawford, *S. L.*
- Ward, *J. T.* See Gary, *W. W.*
- Ward, *L. E.*, Hunter, *R. M.*, and Dow Chem. Co., electrolytic apparatus [for electrolysis of molten salts, e.g., magnesium chloride], (P.), B., 72, 475.
- See also Hunter, *R. M.*
- Ward, *O. W.* See Kinney, *C. R.*
- Ward, *P. T.* See Rogers, *T. H.*
- Ward, *R. R.*, colorimetric determination of phosphorus in citric acid [soil] extracts, B., 321.
- Ward, *T. J.*, detection of free metal particles in dust, etc., B., 194.
- See also Mitchell, *C. A.*
- Ward Baking Co. See Hoffman, *C.*
- Wardell, *V. A.*, effect of insufficient pickling on subsequent galvanising, B., 969.
- Warden, *C. P.*, thermal conductivity and plate efficiency of a rectifying column, B., 47.
- Wardlaw, *H. S. H.* See McClellan, *W. S.*
- Wardlaw, *W.* See Cox, *E. G.*, Drew, *H. D. K.*, and Pinkard, *F. W.*
- Wardle, *J.* See Vickers-Armstrongs, Ltd.
- Wardley, *T.*, glass-forming moulds: material and design, B., 749.
- Wardziński, *E.* See Swientoslawski, *W.*
- Ware, *J. O.* See Nelson, *M.*, and Young, *V. H.*
- Wareing, *T.*, treating articles of wood used in dyeing, bleaching, and similar textile-finishing operations to render them acid- and water-proof, (P.), B., 108.
- Warembourg, *H.* See Boulanger, *P.*, and Polonovski, *Michel.*
- Warén, *H.*, rôle of calcium in the life of the cell; experiments with *Micrasterias*, A., 874.
- Waring, *C. E.* See Staud, *C. J.*
- Waring, *G. H.* See Waring, *W. G.*
- Waring, *W. G.*, and Waring, *G. H.*, refining zinciferous [fume] material, (P.), B., 626.
- Warrington, *K.*, influence of length of day on the response of plants to boron, A., 989.
- Wark, *E. E.*, and Wark, *I. W.*, physical chemistry of flotation. III. Relationship between contact angle and constitution of collector, B., 792.
- Wark, *I. W.*, physical chemistry of flotation. I., B., 631.
- and Cox, *A. B.*, physical chemistry of flotation. II. Influence of cyanide, alkalis, and copper sulphate on effect of potassium ethyl xanthate at mineral surfaces, B., 392. Physical chemistry of flotation. IV., B., 792.
- See also Cox, *A. B.*, and Wark, *E. E.*
- Warkany, *J.* See Guest, *G. M.*
- Warlet, *M.*, adsorption of silver and mercury salts by sugar charcoal, A., 774.
- Warner, *J. C.* See Lee, *H. H.*
- Warner, *R. M.*, and Miller Rubber Co., cementing of rubber to metal, (P.), B., 559. Production of rubber cement, (P.), B., 559.
- Warner, *S. T.* See Leask, *J. P.*
- Warner Gear Co. See Davis, *E. F.*
- Warning, *W. G.*, Schilb, *T. W.*, and Swann Research, Inc., tricalcium phosphate and aluminium phosphate composition [table] salt filler, (P.), B., 386.
- See also Moss, *H. V.*
- Warren, *B. E.*, X-ray analysis of vesuvianite, A., 215. Physical chemistry of alumina-silica refractories. I. Rôle of silicon and aluminium in complex silicates, A., 1235.
- See also Biscoe, *J.*
- Warren, *F. L.* See Farmer, *E. H.*
- Warren, *F. W.* See Dunlop Rubber Co.
- Warren, *J. W.*, artificial stone, (P.), B., 829.
- Warren, *L. A.*, and Smiles, *S.*, rearrangement of *o*-amino-sulphones, A., 58.
- Warren, *L. E.*, constants of oil of spearmint, B., 571.
- Warren, *T. E.*, hydrogenation of Alberta bitumen, B., 6. Effect of pressure on pyrolysis of methane, B., 10.
- Warren, *W. B.*, apparatus for producing a controlled temperature programme, A., 925.
- Warrick, *D. L.*, and Mack, *E., jun.*, copper membrane gas-molecule sieve; Callendar's theory of osmosis, A., 565.
- Warsbergs, *J.*, effect of manuring on botanical composition of grassland, B., 517.
- Wartenberg, *H. von*, and Prophet, *E.*, conductivity of corundum, A., 9. Fusion diagrams of highly-refractory oxides. V. Systems with magnesium oxide, A., 27.
- and Reusch, *H. J.*, fusion diagrams of highly-refractory oxides. VI. Correction, A., 27.
- and Schütte, *R.*, heat of formation of silicon tetrafluoride, carbon tetrafluoride, and silicon carbide, A., 571.
- and Schütza, *H.*, heat of combustion of cyanogen, A., 676.
- Werth, *H.*, and Zodrow, *A.*, water of the Baltic and Danzig, A., 250.
- See also Reusch, *H. J.*
- Warter, *J.* See Merklen, *P.*
- Warth, *F. J.*, sulphur and sulphate balance experiments with cattle, A., 305.
- and Das-Gupta, *N. C.*, quantitative production of benzoic acid and phenols in the animal system, A., 305. Effect of hippuric acid excretion on nitrogen balance, A., 309.
- Wartiovaara, *U.*, leguminous bacteria and plants. XIII. Nitrogen economy of oats in mixed culture with peas, A., 1092.
- Warweg, *E.* See Stearns, *G.*
- Waser, *E.*, and Stähli, *M.*, tobacco smoke. I.—III., A., 91; B., 332, 1083.
- Washburn, *E. R.*, and Shildneck, *C. H.*, surface tension studies with *n*-butyl acetate, A., 774.
- See also Vold, *R. D.*
- Washburn, *E. W.*, crystalline rubber hydrocarbon, A., 371. Standard states for bomb calorimetry, A., 676. Fractionation of petroleum into its constituent hydrocarbons, B., 995.
- Washburn, *M.* See Fricke, *H.*
- Washburn, *M. L.*, and Shear, *M. J.*, composition of bone. XIII. Direct gravimetric determination of calcium, magnesium, and phosphate, A., 296.
- Washburn, *R. G.* See Kranss, *W. E.*
- Washburn, *R. M.*, and Dee-Hy Products Co., preparation of dry non-hygroscopic crude lactose, (P.), B., 808.
- Washburn, *W. F.* See Titanium Pigment Co.
- Washington, *G., jun.*, electric condensers, (P.), B., 26.
- Wasitzky, *A.*, micro-methods for determining proteins in medicine and biology, A., 1218.
- Wasmuht, *R.* See Hondremont, *E.*
- Wasserfuhr, *H.*, soxhlet with three-way tap, A., 44.
- Wassermann, *A.*, kinetics and impediment of the hydrogen peroxide-hydrogen sulphide reaction catalysed by iron, A., 789. Reaction between pyruvic acid and hydrogen peroxide in presence of hydrogen sulphide, A., 1034. Kinetics of a diene synthesis, A., 1150.
- See also Kuhn, *R.*
- Wassermann, *G.*, structure of technical zinc dust, A., 1105. Influence of the  $\alpha$ - $\gamma$  transformation of an irreversible nickel steel on the crystal orientation and tensile strength, B., 390. Structure of commercial zinc dust, B., 1014.
- See also Obinata, *I.*, Schmid, *E.*, and Tanimura, *H.*
- Wassermann, *T.* See Starkenstein, *E.*
- Wassiel, *N.* See Rupe, *H.*
- Watabiki, *T.*, and Himeno, *S.*, detection of *B. coli* in water, A., 753.
- Wataghin, *G.*, theory of the nucleus, A., 996.

- Watanabe, J., action of sugar on amino-acids. II. Reaction in presence of oxidising agents, A., 491. Muscle-glyoxalase, A., 748.
- Watanabe, K., significance of bile acids in carbohydrate metabolism. XXI. Production of glycogen in liver and muscle by bile acid and adenylic acid, A., 88.
- Watanabe, Manjiro, native tellurium in Japan, A., 252.
- Watanabe, Motoo, equilibrium in reduction of nickelous oxide by carbon monoxide, A., 1246. Equilibrium in reduction of cuprous chloride by hydrogen, A., 1246. Equilibrium in reduction of antimony trioxide by carbon monoxide, A., 1246. Thermodynamic data relating to lead sulphide, and the standard electrode potential of sulphur, A., 1247.
- See also Ishikawa, F.
- Watanabe, S., and Morikawa, K., determination of activity of catalysts which accelerate the synthesis of benzene from carbon monoxide and hydrogen at ordinary pressure, B., 738.
- Watanabe, Tokunosuke, synthesis of northupite, tychite, and new artificial minerals of the same group, A., 803. Crystal structures of northupite,  $2\text{MgCO}_3 \cdot 2\text{Na}_2\text{CO}_3 \cdot 2\text{NaCl}$ , and tychite,  $2\text{MgCO}_3 \cdot 2\text{Na}_2\text{CO}_3 \cdot \text{Na}_2\text{SO}_4$ , A., 803.
- Watanabe, Toshio, and Awazu, S., cuprous oxide, B., 463.
- Watarai, R., influence of parenterally introduced liver-cell constituents on amount of urobilin in urine. I. Effect on normal excretion of urobilin. II. Effect on experimental urobilinuria due to injection of haemolysed blood. III. Effect on experimental urobilinuria due to injection of urobilin, A., 985.
- Watchorn, E., effects of excessive intake of magnesium by the rat; production of renal calculi, A., 85.
- and McCance, R. A., inorganic constituents of cerebrospinal fluid. IV. Potassium in serum, serum-ultra-filtrate, and cerebrospinal fluid, A., 1068.
- Waterhouse, A. See Ralli, E. P.
- Waterman, H. I., De Kok, P., and Tulleners, A. J., preparation of paraffins from carnauba wax by means of catalytic hydrogenation, B., 315.
- and De Kok, W. J. C., preparation of  $\beta$ -dimethyl- $\Delta^7$ -pentadiene, A., 371. Preparation of pure  $n$ - $\Delta^4$ -hexene, A., 484. Preparation of pure  $n$ - $\Delta^4$ -heptene, A., 485.
- Hulst, L. J. van der, and Elsbach, E. B., evaluation of oil of turpentine, B., 1018.
- and Oosterhof, D., polymerisation of linseed oil, B., 1065.
- Tulleners, A. J., and Dooren, J., thermal decomposition of paraffin wax in presence and in absence of hydrogen at high pressure, B., 137.
- and Vlodrop, C. van, effect of varying conditions in catalytic hydrogenation of fatty oils on nature of reaction product. II, A., 258. Hydrogenation of mixtures of unsaturated hydrocarbons without addition of a catalyst, A., 804.
- See also Dros, A., Heertjes, P. M., Leendertse, J. J., and Vlughter, J. C.
- Waterman, N., and Limburg, H., chemical reactions brought about by X-rays and their determination, A., 1020.
- Waters, C. E., blue dye as evidence of age of writing, B., 977.
- Waters, E. T. See Murray, D. W. G., and Scott, D. A.
- Waters, R. B. See Canter, F. W., and Robertson, A.
- Waters, W. A., substitution reactions of 4-aminodiphenylmethane, A., 1044.
- Wathelet, E., and Ramele, L., permanganate-reducing power of paper half-stuff, B., 959.
- Watkin, F. See Tyler, E.
- Watkin, J. E. See Knowles, F.
- Watkins, G. See Neeley, G. S.
- Watkins, G. B. See Ryan, J. D.
- Watkins, H. R. See Palkin, S.
- Watkins, J. H., and Winslow, C. E. A., factors determining rate of mortality of bacteria exposed to alkalinity and heat, A., 191.
- Watkins, J. S. See Chapman, D. L.
- Watkins, P. H., and Naugatuck Chem. Co., rubber-coated articles and process, (P.), B., 930.
- Watkins, W. E., digestibility of cottonseed meal as a supplemental feed for range cattle in New Mexico. II. With low protein intake, B., 283.
- See also Cunningham, O. C.
- Watney, Combe, Reid & Co., Ltd. See Morgan, C. F.
- Watson, C. B., and Pure Oil Co., treatment of cracked hydrocarbon vapours, (P.), B., 138. Liquid-phase polymerisation of hydrocarbon oils, (P.), B., 903.
- See also Smith, C. L.
- Watson, C. J., Muir, G. W., Davidson, W. M., and Dore, J. I., vim oat-feed. I. Digestibility, B., 523.
- Watson, C. W. See Joffe, J. S.
- Watson, Claude W., Grahame, J. H., and Texas Co., cracking process [for hydrocarbons], (P.), B., 776.
- Watson, D. M., Danubo grass for paper-making, B., 742.
- Watson, F. J., preservation of standard thiosulphate. II, A., 136.
- Watson, H. B., and Yates, E. D., constitutional factors controlling prototropic changes in carbonyl compounds. IV. Carbethoxyl and allied groups, A., 470.
- See also Nathan, W. S.
- Watson, H. E. See Gajendragad, N. G., and Patel, Z. H.
- Watson, H. L. See Gen. Electric Co.
- Watson, J., butyric acid in the treatment of cancer, A., 628.
- Watson, J. S. See Parkman, W. M.
- Watson, K. M., and Nelson, E. F., methods for approximating critical and thermal properties of petroleum fractions, B., 995.
- Watson, R. H., secretion of phosphorus in the saliva of sheep, A., 968. Threshold for the renal excretion of inorganic phosphates in the sheep, A., 1320.
- Watson, S. J., Drummond, J. C., Heilbron, I. M., and Morton, R. A., influence of artificially dried grass in the winter ration of the dairy cow on the colour and vitamin-A and -D contents of butter, A., 848.
- Watson, W. A. See Doyne, H. C.
- Watson, W. H. See Terroux, F. R.
- Watson, W. W., Zeeman effect of perturbed terms in the CO Ångström bands, A., 112. Barium hydride band spectra in the near infra-red, A., 207.
- Watson, W. W., and Parker, A. E., vibrational quantum analysis of the ultra-violet  $\text{SO}_2$  and  $\text{CS}_2$  absorption bands, A., 207.
- See also Margenau, H.
- Watt, G. W. See Fernelius, W. C.
- Watt, J. M., Heimann, H. L., and Epstein, E., solanocapsine, a new alkaloid with a cardiac action, A., 311.
- Wattenwyl, H. von. See Walther, B.
- Watters, J., dyeing [with vat dyes], (P.), B., 745.
- Watts, A. S., temperature-controlling method for ceramic furnaces or kilns, (P.), B., 268.
- Watts, H. G. See Imperial Chem. Industries.
- Watts, O. O. See McBain, J. W.
- Watts, O. P., electrochemical theory of corrosion, A., 1122.
- Watts, S. See Vigoureux, P.
- Watts, V. M., factors influencing growth and fruiting of tomato, B., 243.
- Waugh, W. A., and King, C. G., vitamin-C activity of hexuronic acid from suprarenal glands, A., 325.
- Wavra, F., leather, (P.), B., 482.
- Wawrzyniak, cause of corrosion of automobile parts by lubricants, B., 376.
- Way, C. T. See Muntwyler, E.
- Wayne, T. B., and Nat. Aluminate Corp., defecation of cane juice, (P.), B., 888.
- Weale, A. See Imperial Chem. Industries.
- Wearing, C. M., theoretical aspects of benzol recovery from coal gas, B., 417.
- Weatherill, P. F., and Brundage, P. S., revision of at. wt. of silicon; ratio  $\text{SiCl}_4 : \text{SiO}_2$ , A., 4.
- Weathers, N. D., determination of the bitter substance in "bitterweed" milk, B., 985.
- Weaver, F. D., effects of variations in mould and pouring temperatures on the macro- and micro-structures of some low-m.p. metals and alloys, B., 351.
- Weaver, R. See Talbot, P.
- Weaver, R. H., fermentation studies on *Lactobacillus acidophilus* and *L. bulgaricus*, A., 867.
- See also Williams, W. L.
- Webb, A. B., and Rightway Corp., mixing and drying machine, (P.), B., 288.
- Webb, B. See Ginnings, P. M.
- Webb, B. H., surface tension of homogenised cream, B., 986.
- and Holm, G. E., heat-coagulation of milk. II. Influence of various added salts on heat-stabilities of milks of different concentrations, B., 122.
- Webb, C. H., serum-proteins in infancy and childhood; effects of malnutrition and of acute and chronic infections on serum-proteins in infancy and childhood, A., 416.
- Webb, H. W., and Messenger, H. A., size of the mercury metastable atom, A., 1225.
- See also Schoeller, W. R.
- Webb, J. H., relationship between reciprocity law failure and the intermittency effect in photographic exposure, A., 682. Photographic reciprocity law failure for radiations of different wave-length, A., 1127.
- Webb, J. S., existence of time lags in the Faraday effect, A., 1232.
- Webb, R. E. See Triebold, H. O.
- Webb, W. R., Clarke, Hans T., and Eastman Kodak Co., cellulose acetate composition, (P.), B., 720.

- Webber, A. F., superheating of steam for heating and process work, B., 47.
- Webber, C. S., Staud, C. J., and Eastman Kodak Co., esterification of cellulose, (P.), B., 542. Benzoylation of cellulose, (P.), B., 699. Hydrolysis of cellulose acetate, (P.), B., 699.
- See also Staud, C. J.
- Webber, L. R. See Woodruff, S.
- Webber, R. F. See Muggleton, G. D.
- Weber, A. See Posanner von Ehrenthal, B.
- Weber, A. E., [fading of] vat colours in the reduced state, B., 344.
- Weber, A. L., and McLean, H. C., removal of lead and arsenic spray residues from apples, B., 937.
- Weber, A. P. See Olivier, S. C. J.
- Weber, F. W., and Maywood Chem. Works, silk improved in weight, durability, and appearance, (P.), B., 303.
- Weber, H., breakdown of bituminous road-making emulsions in contact with stone, B., 966.
- Weber, H. C., and Universal Oil Products Co., [hydrogenation] treatment of hydrocarbon oils, (P.), B., 775.
- Weber, H. H., analysis of technical solvents. IV. Colour reactions for trichloroethylene, carbon tetrachloride, and other chlorinated aliphatic hydrocarbons, B., 1046.
- and Koch, Werner, analysis of technical solvents. III. Colour tests for *n*-propyl, *n*-butyl, isobutyl, and isomethyl alcohols, B., 215.
- and Meyer, Klaus, colloidal behaviour of muscle-proteins. V. Composition of proteins of rabbit muscle and structure of the muscle, A., 1318.
- and Stover, R., colloidal behaviour of muscle-proteins. IV. Mol. wt. of muscle-protein and active volume (van der Waals) of myogen particles, A., 924.
- See also Boehm, G.
- Weber, H. M., and Ellis-Foster Co., cellulose ester composition, (P.), B., 928.
- Weber, I. E., hydrogen peroxide bleaching of wool, cotton, and silk, B., 862.
- See also Laporte, Ltd., B.
- Weber, K. See Ziegler, K.
- Weber, L., photo-electric conductivity and absorption of Lenard phosphors in the red and infra-red spectral region, A., 555.
- Weber, L. J., and Rao, A. N., effect of glycerol on absorption of lactic acid by gels, A., 1113.
- Weber, W., iodine storage in [animal] organs, A., 747.
- Weber, W. C., corrosion problems with phosphoric acid, B., 16. Making strong phosphoric acid at Trail, B.C., (P.), B., 144. Making phosphate fertilisers at Trail [B.C.], B., 322.
- Weberbauer, A., resistance of glass towards acid in relation to its composition and weathering, B., 267, 465.
- Weberbauer, H. See Jellinek, K.
- Weberei Ebnat A.-G., and Textilwerk Horn A.-G., production of paper-like sheets of fibrous material for writing or printing upon, (P.), B., 1052.
- Webert, L. P., and Amer. Brass Co., copper-silicon-zinc alloys, (P.), B., 71. Copper-silicon-zinc-aluminium alloys, (P.), B., 71.
- Webre, A. L., working of the calandria vacuum pan, B., 841, 1029.
- Webster, B. P., and Chipman Chem. Co., light-density [insecticide] composition of Paris green and calcium arsenate, (P.), B., 840.
- Webster, D. B., Sanford, B., and Norton Co., [abrasive] articles of resin-bonded granular material, (P.), B., 917.
- Webster, D. L., Hansen, W. W., and Duveneck, F. B., measurement of X-ray intensities as functions of voltage up to 180 kv., A., 247. Probabilities of K-electron ionisation of silver by cathode rays, A., 760. X-Ray line intensities and cathode-ray retardation in thick targets of Ag, A., 993.
- Webster, D. R., and Armour, J. C., effect of pyloric obstruction on gastric secretion, A., 299.
- Webster, S. H., and Dennis, L. M., preparation and purification of methyl borate and ethyl borate, A., 1006.
- Webster, V. S. See Raiford, L. C.
- Webster, W. L., phenomena occurring in melting of metals, A., 767.
- Webster, W. R., Christie, J. L., and Pratt, R. S., comparative properties of oxygen-free, high-conductivity, phosphorised, and tough-pitch coppers, B., 430.
- Weckel, K. G., preparing the serum of butter for pH determination, B., 844.
- Weckfort, A., colour photography, (P.), B., 685.
- Weckman, S. See Komppa, G.
- Wedekind, E., magnetic and catalytic properties of wood ashes, A., 212.
- [with Reischel, W.], characterisation of woods by the magnetism of their ash, B., 508.
- See also Albrecht, W. H., and Schicke, W.
- Wedgwood & Sons, Ltd., J., and Wilson, N., tunnel ovens, (P.), B., 447, 495, 768.
- Wedler, H. W. See Kosterlitz, H.
- Weech, A. A., Goettsch, E., and Reeves, E. B., effect of serum transfusion on the plasmapheresis depletion associated with nutritional oedema in dogs, A., 740, 853.
- Snelling, C. E., and Goettsch, E., relationship between plasma-protein content, plasma-specific gravity, and oedema in dogs maintained on a protein-inadequate diet and in dogs rendered oedematous by plasmapheresis, A., 740, 853.
- Weeks, M. Z. See Turner, R. G.
- Weerts, J., mechanism of the transformations in  $\beta$ -brass and in  $\beta$ -silver-zinc alloys, A., 118. Elasticity of copper sheets, B., 550.
- See also Bauer, O., Stenzel, W., and Straumanis, M.
- Weerts, V., jun., and Maximine Soc. Anon., washing and bleaching of textile materials, (P.), B., 745.
- Weese, H., biological assay of callicrein, A., 1335.
- Weesner, C. W. See Marsh, H. S.
- Wefelscheid, P., and Amer. Lurgi Corp., apparatus for thoroughly intermingling gases or vapours with molten substances, (P.), B., 177.
- Wegelin, C. See Abelin, I.
- Wegler, R., configuration-specific esterification of sec.-alcohols in presence of brucine or strychnine, A., 1139.
- Wegner, P., Cimerman, C., and Gorni, M., precipitation of iron as basic acetate, A., 1133.
- Wegscheider, R., photochemical kinetics, A., 472. Photochemical transformation of *o*-nitrobenzaldehyde. II., A., 473.
- Wegwitz, O. See Wöhler, L.
- Wehefritz, E., and Gierhake, E., occurrence of growth-promoting substances in urine of pregnancy, A., 194.
- Wehmeier, E. See Fischer, F. G.
- Wehmer, P. F., chemical paper-testing methods, B., 542.
- Wehmhoff, B. L., Simmons, R. H., and Boyce, D. H., Bekk smoothness tester as an aid in studying the printing quality of paper, B., 263.
- Wehner, A., action of prolan, A., 869.
- Wehrli, S., micro-burette for carbon dioxide determination, A., 1266.
- Wehrli-Hegner, J., and Wyss, O. A. M., permeability of living tissue to carbonic acid, A., 1328.
- Wehrmann, O. See Gehring, A.
- Weibke, F. See Biltz, W.
- Weick, viscosity determinations, B., 287.
- Weicker, B., clinical evaluation of convallatoxin, A., 186.
- Weidemann, G. H., and Dow Chem. Co., mould part, (P.), B., 795.
- Weidemann, W. See Fischer, Werner.
- Weidenhagen, R., specificity and mechanism of action of carbohydrases, A., 92. Specificity of  $\alpha$ -glucosidase, A., 749. Purification of plant-amylases. I., A., 862.  $\beta$ -*h*-Fructosidase [invertase]. II., A., 1080. Determination of activity of commercial invertase preparations, B., 247. Fission of inulin by  $\beta$ -*h*-fructosidase, B., 280.
- and Korotkiy, B., biolase, A., 1080.
- Weidinger, A. See Katz, J. R.
- Weidlich, G., vitamin-D, A., 1340.
- See also Schrempt, A.
- Weidlich, H. A. See Butenandt, A.
- Weidmann, H. See Girsewald, C. (Baron) von.
- Weidmann, U., and Metzger, A., determination of raw fat in feeding-stuffs, B., 650.
- Weigl, C. A., and Smith, Floyd F., gladiolus thrips in the United States, B., 935.
- Weigel, R., and Victor Chem. Works, phosphorus, (P.), B., 386.
- Weiger, J. A., and Mallory & Co., Inc., P. R., electrical make-and-break contact and composition therefor, (P.), B., 636.
- See also Sieger, G. N.
- Weigert, F., and Eberius, E., light-sensitive surface layers. III., A., 459.
- Weigle, J., structure of atoms and molecules revealed by X-rays, A., 443.
- Weil, A. J., and Besser, F., antigenic properties of cholesterol and its derivatives, A., 410.
- Weil, L. See Waldschmidt-Leitz, E.
- Weiland, H. See Alten, F.
- Weiland, H. J., and Gubelmann, I., purification of organic bodies [1-nitronaphthalene and  $\alpha$ -naphthylamine], (P.), B., 379.
- See also Du Pont de Nemours & Co., E. I., and Romaine, E. van.
- Weiler, J., fundamental frequencies of the group SiO<sub>4</sub> in quartz crystals, A., 114. Normal vibrations of the SiO<sub>4</sub> group, A., 337. Raman effect in silicic acid esters and silicic acid gels, A., 1102.
- See also Signer, R.
- Weill, A. See Lobstein, J. E.
- Weill, A. D., modern practice in metal cleaning, B., 590.

- Weimann, M., rectification in packed columns, B., 944.
- Wein, S., determination of efficiency of oxidation of ammonia, B., 545.
- Weinberg, W. H. See Grasselli Chem. Co.
- Weinberger, E. See Kubelka, V., and Waelsch, H.
- Weinberger, H., and Gardner, W. H., shellac. VII. Determination of acid value, B., 755.
- Weindling, J. See Herzog, R. O.
- Weinert, H., influence of sand and soil on digestibility of foodstuffs and on milk yields, B., 651.
- Weingand, R., and Schulz, H. I., smokeless powder, (P.), B., 846.  
See also Wolff & Co.
- Weingessel, A., container for inflammable liquids, (P.), B., 530.
- Weinig, A. J., and Amer. Metal Co., [flotation] separation of ore, (P.), B., 712.
- Weinland, K., blood-sugar curves in dry catarrh of upper respiratory passages to diagnose latent disturbances of carbohydrate metabolism, A., 526.
- Weinland, L. A., and France, W. G., adsorption of crystal solution interfaces. VI. Macroscopic sodium nitrate crystals grown in the presence of dyes and other foreign materials, A., 20.
- Weinmann, H., influence of potassium ions on development of summer barley, B., 439.
- Weinstein, A. See Harrop, G. A.
- Weinstein, B. M. See Beard, J. W.
- Weinstein, L., and Rettger, L. F., factors involved in biological production of acetone and butyl alcohol, A., 537.
- Weinstein, O. See Tropsch, H.
- Weinstein, P., f.-p. determination of hens' and ducks' eggs, B., 1080.
- Weinstock, M. See Hess, A. F.
- Weinzirl, J., biology of the tubercle bacillus. III. Does the so-called fatty capsule serve to protect the tubercle bacillus? A., 867.
- Weir, H. M. See Birch, A. B.
- Weir, J. F. See Burke, C. F.
- Weir, P., New Atlanta turbidimeter [for water], B., 526.
- Weisberg, H. See Lehrman, L.
- Weisberg, L., Greenwald, W. F., and Weisberg & Greenwald, Inc., preparation of chromium-coated [type-metal] articles, (P.), B., 715.
- Weisberg, S. M., Johnson, A. H., and McCollum, E. V., chemistry of soft-curd milk, B., 843.
- Weisberg & Greenwald, Inc. See Greenwald, W. F., and Weisberg, L.
- Weischedel, F., diffusion of metals in mercury, A., 1110.
- Weise, R., dyeing of hosiery, (P.), B., 384.
- Weise, W., review of vitamins and avitaminoses, A., 540.  
and Brand, T. von, application of the method of Hagedorn and Jensen to the determination of other sugars, A., 1179.  
See also Tropp, C.
- Weisel, K., magnetic properties of celloidin, agar-agar, and celluloid under artificial anisotropy, A., 890.
- Weiser, H. B., and Gray, G. R., mechanism of coagulation of sols by electrolytes. IV. Arsenic trisulphide sol, A., 23.  
and Milligan, W. O., X-ray studies on the hydrous oxides. I. Alumina. II. Stannic oxide. III. Stannous oxide, A., 214.
- Weiser, S., and Veghelyi, E., iodine tolerance in sheep and lambs, A., 424.
- Weishaar, H., determination, minimum content, and origin of honey diastase, B., 603.
- Weiss, A. G., Monguio, J., and Bernard, L., effect of parathyroidectomy on blood-calcium, A., 193.
- Weiss, E. See Freudenberg, K.
- Weiss, F. See Griebel, C.
- Weiss, F. (Copenhagen), Icelandic soil types, A., 929.
- Weiss, G., and Nord, F. F., mechanism of enzyme action. XI. Cryolysis and charging with gas of lyophilic colloids. I., A., 1117.  
See also Nord, F. F.
- Weiss, G. A., Kappen's method for determination of the sum of adsorbed bases (S) [in soils], B., 758.
- Weiss, H., and Vellinger, E., interfacial tension between mineral oils and aqueous solutions of electrolytes, B., 374.
- Weiss, Hans. See Griessbach, R.
- Weiss, Harry. See Pringsheim, H.
- Weiss, H. F. See Wyatt, E. M.
- Weiss, J. See Haber, F.
- Weiss, J. M., production of resins of the coumarone-indene type, (P.), B., 929.  
and Barrett Co., disposal of coal-tar pitch, (P.), B., 820.
- Weiss, M. H. See Kuczyński, W.
- Weiss & Downs, Inc. See Craver, A. E.
- Weissberger, A., oxidative processes. VI. Mechanism of autooxidation and racemisation of  $\alpha$ -ketols and steric hindrance, A., 161. Existence of optically active diazo-compounds. III., A., 494.  
and Dym, E., oxidative processes. VII. Preparation, racemisation, and autooxidation of the optically active 2:2'-diethoxybenzoins, A., 611.  
and Sängewald, R., dipole moment and structure of organic compounds. XII. A., 339.  
and Strasser, E., purification of aromatic amines, A., 59.
- Weissenborn, A. See Knorr, A.
- Weissflog, J., phosphorus metabolism in higher plants. II. Sterile cultures of higher plants, A., 648.  
and Mengdehl, H., phosphorus metabolism in higher plants. III. Intake and utilisation of organic phosphorus compounds by plants. IV. Intake and utilisation of inorganic phosphorus compounds by plants, A., 648.
- Weisskopf, P., width of spectral lines in gases, A., 201. Scattering of light by excited atoms, A., 1101.
- Weissmann, G. A., determination of phenacetin, aspirin, and antifebrin, B., 732.  
and Jampolskaja, M. M., determination of silver in aqueous solutions of protargol in presence of adrenaline, B., 892.
- Weist, P., lattice constant and particle size in gold-silver alloys, A., 450.
- Weiszfeiler, F., cost reduction in oil works, B., 1065.
- Weitendorf, K. F. See Jander, G.
- Weithauer, A. See Müller, Carl.
- Weithöner, R., and Glasurit-Werke M. Winkelmann A.-G., production of artificial resins from polyhydric alcohols and polybasic acids, (P.), B., 837.
- Weitz, E., and Heubaum, U., formation of layers in the systems alkali hydroxide-water-ammonia, A., 562.
- Weizel, W., band spectra and molecular structure. I., A., 661.
- Weizsäcker, C. F. von, passage of penetrating corpuscular rays through a ferromagnetic, A., 995.
- Wejnarth, A. R., electrothermic smelting of sulphidiferous materials, (P.), B., 633. Electric arc and arc-resistance furnaces and their power factor, B., 752.
- Welbergen, H. J., insulation for introduction of electrical connexions into high-pressure vessels, A., 1026.
- Welborn, M. C., errors of the doctors according to Friar Roger Bacon of the Minor Order, A., 250.
- Welch, J. B., drying apparatus [for timber, etc.], (P.), B., 2.
- Welch, J. W. See Reed, C. I.
- Welch, M. B., average moisture equilibrium for wood, B., 670.
- Welch, S. A. See Brit. Celanese.
- Welcome, C. J. See Noble, W.
- Weld, C. B., and Sykes, J. F., effect of irradiated ergosterol on calcium and phosphorus retention in children, A., 326.  
See also Taylor, N. B.
- Weldert, R., Kolkwitz, R., Köhler, H., and Bausch, H., irrigation with ammoniacal liquor mixed with town-sewage effluent, 1931, B., 118.
- Weldon, J. J. See Gen. Electric Co.
- Welker, J. P. See Amira Trust.
- Wellard, R. See Mondain-Monval, P.
- Weller, A., detection of arsenic in Tartarus stibiatus according to D.A.B. VI, B., 1034.
- Weller, E. See Porai-Koschitz, A.
- Weller, R., and Schramm, E., refining processes for producing motor benzol from crude benzol, B., 136.
- Welles, E. See Solacolu, T.
- Wellings, A. W., use of adsorption indicators in volumetric analysis, A., 798.
- Wellm, J., behaviour of liquid nitrobenzene in vicinity of m.p., A., 11.
- Wellmann, M. See Fredenhagen, K.
- Wells, D. A., and Balinkin, I., spectra of potassium and sodium in the mercury arc, A., 439.
- Wells, F. B. See Allen, C. F.
- Wells, H. D., paper stuff hydrator, (P.), B., 1005.
- Wells, J. B., Wynd, C. L. A., and Eastman Kodak Co., cellulosic films, (P.), B., 621.
- Wells, J. H. See Southcombe, J. E.
- Wells, L. S. See Flint, E. P.
- Wells, P. A. See Palkin, S.
- Wells, R. C., and Erickson, E. T., analysis and composition of fatty material produced by decomposition of herring in sea-water, A., 297.  
Fairchild, J. G., and Ross, C. S., thorianite from Easton, Pa., A., 928.
- Wells, S. D., manufacture of distillable spirits by fermentation, (P.), B., 985.  
and Mine & Smelter Supply Co., production of fibre, (P.), B., 960.  
and Nekosa-Edwards Paper Co., bleaching of paper pulp, (P.), B., 743.  
See also Rue, J. D.
- Welo, L. A. See Baudisch, O.
- Wels, P., and Jokisch, M., reversibly oxidisable substance from irradiated protein, A., 1063.
- Weltzien, W., linseed oil sizes. I. General methods for investigation of difficulties and faults, B., 584.



- Weltzien, W., and Coordt, W., tension conditions in rayon fabrics and their significance in manufacturing and finishing processes, B., 618.
- and Coordt, W. [with Skamkiewicz, H.], fabric investigations. VII. Weft cracks in rayon crepe. VIII. Warp stripes in acetate-rayon cloths, B., 584.
- and Königs, W., determination of oil in acetate rayon, B., 584. Strength measurements on rayon crepe yarns before and after boiling; a new method of testing crepe yarns, B., 618.
- and Schulze, K., substantive dyeing of cellulose fibres, B., 224.
- Welwart, behaviour towards hard water of condensation products of high-molecular aliphatic alcohols with sulphonation media, B., 181. Washing and soap powders containing sodium silicate and their behaviour with hard water, B., 397.
- Wenck, P. See Wilson, P. W.
- Wendekamm, K., molecular refraction of alums, A., 663.
- [with Gille, F.], alkylamine and other organic alums [and chlorostannates], A., 493.
- Wendel, W. B., determination of lactic and pyruvic acids [in blood], A., 1181. Oxidations by erythrocytes and catalytic influence of methylene blue. I. Oxidation of lactate to pyruvate. II. Methæmoglobin and effect of cyanide, A., 1315.
- Wendler, A. F., and Nat. Aniline & Chem. Co., dust separation, (P.), B., 4. Ball mill, (P.), B., 448.
- Wendt, G. von, and Müller-Lenhartz, W., importance of mineral supplements and iodine for milch cows, A., 1196.
- See also Müller-Lenhartz, W.
- Wendt, H. See Nothmann, M.
- Wendt, H. D., and Sharples Separator Co., obtaining butter fat from sour-milk products, (P.), B., 477.
- Wendt, L., and Wilkinson, J. A., analysis of lettuce ash, B., 683.
- Wenk, P., determination of conductivity and dielectric constants of electrolytes for wave-lengths of 1 m., A., 925.
- Wenrich, D. H., and Geiman, Q. M., Schaudinn's fixative for protozoa, A., 1205.
- Wensel, H. T. See Henning, F., and Roeser, W. F.
- Went, F. A. F. C., growth substance (auxin) in plants, A., 1214.
- Went, J. J. See Carrelli, A., and Ornstein, L. S.
- Wentrup, H. See Behrendt, G.
- Wenz, E. See Lewis, E. K.
- Wenzel, F., nomogram for mixing raw meal [for cement], B., 628.
- Wenzelberg, O. See Wöhler, L.
- Wenzke, H. H. See O'Leary, L. A.
- Werber, E. See Bume, G. F.
- Werder, F. von. See Windaus, A.
- Werkenthin, M. See Smoleński, K.
- Werkman, C. H., Davis, Charles W., and Tarnutzer, C. A., trimethylene glycol fermentation, A., 640.
- Johnson, C. A., and Coile, H. D., electron-tube potentiometer for determination of reduction-oxidation potentials, A., 925.
- and Stahly, G. L., butyl-acetone group of bacteria. I. Gelatinolysis, A., 867.
- See also Brockmann, M. C., and Osborn, O. L.
- Werkspoor N. V. See Bonath, R.
- Werle, E. See Frey, E. K.
- Werley, G. L. See Anderson, E. A.
- Wermer, P., and Monguié, J., antagonism between insulin and pituitrin, A., 1209.
- Werner, A. See Bünger, H., and Nolte, O.
- Werner, D. R. E., Giertz-Hedström, S., and Stålhane, O., cement and cement articles, (P.), B., 270.
- See also Stålhane, O.
- Werner, E., significance of bath temperature in chromium electrolytes, B., 1063.
- Werner, E. A., purification of acetone and ether, A., 809. Preparation of isopropyl bromide from isopropyl alcohol, A., 1139.
- Werner, F. G. See Stratmann, H.
- Werner, H. See Schmalfuss, Hans, and Treff, W.
- Werner, J., transferring prints on to surfaces, (P.), B., 1020.
- Werner, L. See Wagner-Jauregg, T.
- Werner, O., evolution of gas from worked metals, A., 898. Production of highly concentrated emanation preparations, A., 927.
- Werner, S., electron scattering in helium; absolute measurements at 90° and 45°, A., 202. Elastic electron scattering in gases, A., 658.
- Werner, W., spore-forming bacteria concerned in butyric acid decomposition, A., 639.
- Wernersson, F., and Jensen, K. V. I., substance resembling curled hair, (P.), B., 382.
- Wernert, I. J., and Brode, W. R., synthesis of  $\beta$ -ethoxyamines, A., 55.
- See also Brode, W. R.
- Wernick, S., cleaning of iron and steel, B., 590. Cleaning of metals. III. Theory of the alkaline cleaner. IV. Some practical aspects of alkaline cleaning. V. Electrolytic cleaner, B., 1015, 1062.
- Werre, J. P., appearance of stationary concentrations between two membranes, A., 223.
- See also Schreinemakers, F. A. H.
- Werres, H. See Hansen, C. J.
- Werth, H. See Wartenberg, H. von.
- Wertheim, E., benzylbenzaldoxime, A., 824.
- Wertheimer, E., physiology of plant and animal membranes, A., 82.
- See also Abderhalden, E.
- Werther, M. H., nitration of *o*- and *p*-aminodiphenyl derivatives, A., 945.
- Wertyporoch, E., [with Kowalski, I., and Roeske, A.], iron chloride and other metallic chlorides in the Friedel-Crafts reaction, A., 1131.
- [with Kwasniewski, W.], chlorination of paraffins. II., A., 590.
- and Firla, T., conductivity of aluminium chloride in non-aqueous solution, A., 127. Mechanism of the Friedel-Crafts reaction, A., 385.
- and Kowalski, I., conductivity of ferric chloride in non-aqueous solution, A., 1121.
- and Sagel, H., action of aluminium bromide on benzene, A., 1152.
- Wertz, J. E. See Thiessen, G. W.
- Wescott, W. B., and Dewey & Almy Chem. Co., coagulation of rubber [latex], (P.), B., 597.
- Wesemann, F., addition of coke-oven gas in producer gas-fired open-hearth furnaces, B., 429.
- Wesemann, H. See Terres, E.
- Wesly, W., use of iron from iron carbonyl as a standard substance for volumetric analysis, A., 246. Determination of residual oxygen in degassed feed-water containing sulphite, B., 94. Softening of feed water by phosphate before purification, B., 175.
- Wesolowski, K. See Broniewski, W.
- Wessel, W., electron spin and theory of the neutron, A., 660.
- Wessely, F., Kornfeld, L., and Lechner, F., synthesis of daidzein and of 7-hydroxy-4'-methoxyisoflavone, A., 614.
- See also Späth, E.
- Wesson, A. J. See Brit. Celanese.
- Wesson, D., solvent extraction [of cottonseed], B., 876.
- Wesson, L. G., effect of protracted exercise, intestinal fermentation, and modification of diet on attainment of abnormal respiratory quotients by rats on a fat-deficient diet, A., 527.
- and Murrell, F. C., dietary factor concerned with carbohydrate metabolism, A., 1211.
- West, A. See Nill, E. A.
- West, A. P., larvicide studies. IV. Various toxic substances partially adsorbed on charcoal as an *Anopheles* larvicide, B., 37.
- See also Russell, P. F., and Yenke, F. M.
- West, C. See Kidd, F.
- West, E. See West, F. J.
- West, Edward S., Lange, A. C., and Peterson, V. L., sugars of urine. II. Factors affecting excretion of fermentable and non-fermentable sugars in urine, A., 179.
- and Peterson, V. L., sugars of urine. I. Determination of reducing sugars of urine, A., 179.
- and Steiner, A., sugars of urine. III. Nature of the fermentable sugar of normal and starvation urine, A., 179.
- See also Freiberg, I. K.
- West, Eric S., effect of a soil mulch on soil temperature, B., 162. Soil moisture and water-tables in an irrigated soil at Griffith, N.S.W., B., 1025.
- West, F. J., West, E., and West's Gas Improvement Co., coke chambers of vertical gas retorts [shaped to facilitate coke extraction], (P.), B., 10. Vertical retorts for carbonisation of coal, etc., (P.), B., 820.
- West, H. J., and Selden Co., purification of vat dyes and intermediates, (P.), B., 55.
- See also Jaeger, A. O.
- West, J. See Ito, T., Jackson, W. W., and Santos, J. A.
- West, L. B., Wall, M. P., and Simplicity System Co., drying of material, (P.), B., 528.
- West, Walter, phosphorus in cast iron, B., 192.
- West, William. See Salant, E. O.
- West's Gas Improvement Co., Ltd. See West, F. J.
- Westen, H. A. van. See Vlugter, J. C.
- Westenbrink, H. G. K., vitamin-B<sub>1</sub> content of the organs of white rats fed on normal and B<sub>1</sub>-free diets, A., 195. Tissue respiration in beriberi. II., A., 195. Vitamin-B and liver-glycogen, A., 1339.
- and Overbeck, G. A., vitamin-B and intestinal resorption, A., 1339.
- Wester, R. E. See Neal, D. C.

- Westerhoff, H. See Meissner, W.
- Westerkamp, H., keto-acids in blood-serum, A., 966.
- Westerman, R. W., adjustable stopcock remover, A., 250.
- Westermann, I., absorption of silver by glasses, A., 1020.
- Westermann, W., disinfectant tests with ethyl and isopropyl alcohols with addition of a soap preparation "Baktol," B., 654.
- Western, F., and Ruark, A. E., half-life of actinouranium and problem of geologic time, A., 1224. Actinium branching ratio, A., 1224.
- Western Cartridge Co. See Olin, J. M., O'Neil, A. S., Schuricht, A. G., and Wagner, W. E.
- Western Electric Co., Inc., Andrews, J. W., and Gillis, R., magnetic material [nickel-iron alloy] and magnet core, (P.), B., 68.
- Beath, C. P., and Heinecke, H. M. E., [iron-nickel alloy] magnetic materials, (P.), B., 311.
- and Cox, T. K., coating of articles [wire with rubber], (P.), B., 924.
- and Eastlake, W. H., testing [insulating] coating materials [on wires], (P.), B., 717.
- and Elmen, G. W., magnetic material [alloys], (P.), B., 394.
- and Gillis, R., magnetic structures [nickel-iron alloy dust cores], (P.), B., 68.
- and Heinecke, H. M. E., [iron-nickel alloy] magnetic materials, (P.), B., 311.
- and Malm, F. S., preparation of compositions of matter [containing rubber], (P.), B., 32.
- and Neighbors, C. C., magnetic material, method of making same, and articles made therefrom, (P.), B., 394.
- and Scott, W. J., making ceramic [moulding] material [of high electrical insulation], B., 20. Ceramic material and manufacture of ceramic articles, (P.), B., 20. Refining of copper, (P.), B., 713.
- and Shaw, L. J., detergent, (P.), B., 275.
- Shaw, L. J., and Scott, W. J., ceramic [moulding] material [of high electrical insulation], (P.), B., 20.
- and Tomlinson, M. C. W., [electrical] device for determining [hygroscopic] condition of a gas, (P.), B., 717.
- and Voss, A. H., rubber articles, (P.), B., 1023.
- and Ward, H. L., composite [fibre-rubber] articles [as insulators], (P.), B., 503.
- and Zimmerman, L. C., apparatus for heat-treating metallic articles, (P.), B., 69.
- Western Newspaper Union. See Pawlitschko, A. R.
- Westfall, B. B., colorimetric determination of chlorides in blood and urine, A., 1188.
- and Richards, A. N., chloride content of glomerular urine and plasma of frogs, A., 1068.
- Westgate, W. A. See O'Kane, W. C.
- Westgren, A., X-ray investigations of constitution of alloys, A., 1007. Complex chromium and iron carbides, A., 1106.
- See also Adelsköld, V., Hellbom, K., and Morral, F. R.
- Westgren, A. F. See Ehret, W. F., and Jacobson, B.
- Westhaver, J. W., chemical action in the glow discharge. XII. Dissociation of ammonia, A., 1254.
- Westin, G., scorbutic dental changes and their modification by synthetic vitamin-C preparations, A., 434.
- Westinghouse Electric & Manufacturing Co., and Brace, P. H., [iron-silicon] alloys, (P.), B., 110. Preparation and purification of [iron-silicon] alloys, (P.), B., 311. Induction furnace, (P.), B., 474.
- and Brown, A. L., fluid [phenolic] condensation product, (P.), B., 356. Emulsified fluid lubricant, (P.), B., 616.
- and Ellis, O. W., alloy [brass], (P.), B., 592.
- and Elsey, H. M., carbonising metals [nickel for electron tubes], (P.), B., 112. Carbonised electrodes [for electron-discharge tubes], (P.), B., 475. Carbonising nickel or other metals, (P.), B., 713.
- and Ford, J. G., [refining of] insulating oil, (P.), B., 259. Refining of oils; paraffin- and naphthene-base oils, (P.), B., 615.
- and Frey, A. A., space-current discharge device, (P.), B., 73. Magnetic [iron] alloys, (P.), B., 272.
- Frey, A. A., and Cole, G. H., magnetic iron alloys [for transformer cores], (P.), B., 234. Magnetic [iron] alloy, (P.), B., 632.
- and Gerdien, H., electrical fuse for high or low voltage, (P.), B., 273.
- and Goff, J. T., impregnation of electrical conductor [coil] insulations, (P.), B., 26.
- and Halliwell, G. P., [heat treatment of copper-manganese-nickel] alloy, (P.), B., 592. Thermionic cathode, (P.), B., 716.
- and Heinrich, R., gas purification [by electrical means], (P.), B., 512.
- Kraut, S. B., and Margner, C. E., copper hemisulphide rectifier, (P.), B., 554.
- and Lavalley, J. A., heat treatment of piezo-electric crystal sections, (P.), B., 26.
- and Long, T. H., adjustable induction heating device; induction furnace, (P.), B., 474.
- and Martin, G. F., jun., copper oxide rectifier, (P.), B., 973.
- and May, D. R., polyhydric alcohol-polybasic acid synthetic resin, (P.), B., 115.
- and Merten, W. J., grey cast iron from iron-silicon alloys, (P.), B., 110. Annealing of nitrided steel, (P.), B., 394.
- and Morgan, D. W. R., oil-still [vertical] condenser, (P.), B., 207.
- and Pilling, N. B., [manganese-nickel-copper] alloy, (P.), B., 312.
- Pilling, N. B., and Bedworth, R. E., temperature-sensitive element, (P.), B., 395.
- and Potter, J. A., heat-exchange apparatus, (P.), B., 688.
- and Scott, H., composite conductor [for sealing into glass], (P.), B., 553.
- and Seastone, J. B., magnetic [iron-nickel alloy] material, (P.), B., 472.
- Smede, L., and Shand, E. B., [precious-metal-coated vitreous body], (P.), B., 106.
- Westinghouse Electric & Manufacturing Co., and Smith, J. N., electrolytic cell [for electrolysis of water], (P.), B., 273. Electrode for electrolytic apparatus [for electrolysis of water], (P.), B., 273.
- and Spence, Le R. U., drying of oil varnishes, (P.), B., 277.
- and Staeger, S. A., method and means for indicating paper dryness, (P.), B., 744.
- and Styer, C. A., insulating material, (P.), B., 555.
- and Sutherlin, L., thermionic rectifier, (P.), B., 554.
- and Thomas, T. P., revitalising chromium-plating solutions, (P.), B., 112.
- and Upp, C. B., carbonised non-emissive electrode [for electron-discharge devices], (P.), B., 113.
- and Woodson, J. C., electric furnace, (P.), B., 512.
- Westinghouse Lamp Co., and Driggs, F. H., preparation of rare refractory metal [tantalum] powders by electrolysis, (P.), B., 593.
- Driggs, F. H., and Lilliendahl, W. C., production of rare metals [e.g., uranium] by electrolysis, (P.), B., 433. Preparation of metal phosphides, (P.), B., 914.
- and Fredenburgh, M. N., electron-emission material, (P.), B., 397, 554.
- Hageman, A. M., and Lindstrom, A. F., inside-coated [electric] lamp bulb, (P.), B., 475.
- and Iredell, C. V., carbonisation of metals and alloys, (P.), B., 834.
- Marden, J. W., and Lederer, E. A., alkali-metal [-containing electric-discharge] tubes, (P.), B., 475.
- and Rentseher, H. C., electron-discharge devices, (P.), B., 555.
- and Rich, M. N., separation of zirconium, titanium, and hafnium, (P.), B., 473.
- and Widell, E. G., electron-discharge devices, (P.), B., 555.
- Westley, W. A. See King, R. H.
- Westman, A. E. R., effect of mechanical pressure on imbibitional and drying properties of ceramic clays. II., B., 627.
- Westmeyer, H. See Schüler, H.
- Weston, M. See Edgar, R.
- Weston, P. E., micro-fractionating column for liquids having low heat of vaporisation, A., 690.
- and Roessler & Hasslacher Chem. Co., hydrogen iodide, (P.), B., 827.
- Weston, R. S., and Griffin, A. E., manganese in impounded waters, B., 494. Neutralising the effect of manganese in impounded water, B., 654.
- Westra, J. J., and Hunter, V., effect of irradiating non-goitrogenic cabbage on its goitrogenic activity, A., 1322.
- and Kunde, M. M., blood-cholesterol in experimental hypo- and hyperthyroidism (rabbit), A., 1337.
- Westvaco Chlorine Products, Inc. See Low, F. S.
- Westveld, R. H., eradicating weeds with zinc sulphate and by burning in forest nursery seed beds, B., 840.
- Westwood, R. J. See Boggs, W. B.
- Wetherbee, A. U., and Autogas Corp., method of combustion, (P.), B., 213.
- Wetherbee, B. W., mechanical mixing of asbestos and rubber, B., 239.

- Wetherill, J. P., and Amer. Magnesium Metals Corp., magnesium[-cobalt] alloy, (P.), B., 714.
- Wetial, ammonium sulphate, (P.), B., 18.
- Wetloff, G. See Süe, P.
- Wettstein, W. See Soc. Chem. Ind. in Basle.
- Wetzel, E. See Kaiser, H.
- Wetzel, K., the carboxylase system in green plants, A., 105. Physiology of anaerobic respiration of higher plants, A., 1341.
- Wetzel, W. W., quantum mechanical cross-section for ionisation of helium by electron impact, A., 882.
- Wever, F., transformations in hardening of steel, A., 119. X-Ray testing of iron and steel, B., 790.
- and Jellinghaus, W., influence of chromium on transformations of carbon steel, B., 469. Transformation of austenite. II. Dilatometric study, B., 469.
- and Lange, Heinrich, transformation of austenite. I. Magnetic study, B., 469.
- See also Lange, Heinrich.
- Weyer, I., course of solid reaction between lime and silicic acid, A., 133.
- Weyerts, W. See Hickman, K. C. D.
- Weyh, W. See Raisch, E.
- Weyl, W., and Kneidl, E., demonstration of solvation phenomena by an optical method, A., 781.
- and Thümen, E., constitution and colour of chromium glasses, B., 1009. Constitution of glass. II. Theoretical basis of glass coloration, B., 1055.
- See also Chesters, J. H., and Möltig, H.
- Weyrauch, F., and Necke, A., milk-, mucilage-, and fat-prophylaxis in lead poisoning, A., 634.
- See also Litzner, S.
- Whalley, H. K., and Rideal, E. K., phase boundary potentials of adsorbed films on metals. I. Oxygen on gold. III. Examination of the interaction of copper and iodine vapour by the method of surface potentials, A., 775.
- See also Jacobs, L.
- Whalley, M. E., preservation of printed materials and manuscripts, B., 911.
- Wheat, W. N. See Friend, J. A. N.
- Wheatley, A. H. M. See Quastel, J. H.
- Wheeler, A. S., and Mattox, W. J., naphthols. II. Chlorination of 1:5-dihydroxy-naphthalene, A., 390.
- Wheeler, D. E. See Tompkins, F. C.
- Wheeler, J. A., dispersion and absorption of helium, A., 331.
- Wheeler, M. C., Goodale, C. D., and Commercial Solvents Corp., continuous butyl alcohol fermentation process, (P.), B., 682.
- Wheeler, R. V. See Ashmore, J. E., Guenault, E. M., Heathcoat, F., Lloyd, F., Maxwell, G. B., Mott, R. A., Naylor, C. A., and Robinson, H.
- Wheeler, T. S., linear relationships between the radii of molecules, A., 211. Calculation of the second virial coefficient of gases, A., 895. Utilisation of methane, B., 539.
- See also Advani, A. H., and Imperial Chem. Industries.
- Whelan, P. R., Portland cement, (P.), B., 107.
- Wheland, G. W. See Conant, J. B.
- Whessoe Foundry & Engineering Co., Ltd., and Grant, A. G., apparatus for electrical treatment of gases, (P.), B., 26. Removal of solids from liquids, (P.), B., 335.
- See also Lucas, O. D.
- Whetzel, J. C., and Amer. Sheet & Tin Plate Co., treatment of ferrous sheets and plates [to prevent sticking during annealing], (P.), B., 873.
- Whiddington, R., electron polarisation, A., 761.
- Emmerson, T., and Taylor, J. E., small-angle inelastic scattering of electrons in helium, A., 882.
- See also Emmerson, T., Poultney, F. C., and Taylor, J. E.
- Whipp, B., adsorption of iodine by potassium iodide, A., 899.
- Whipple, F. J. W., wet-and-dry bulb hygrometry: relation to theory of experimental researches of Awbrey and Griffiths, A., 367. Relations between combination coefficients of atmospheric ions, A., 657.
- Whipple, G. H., and Robscheit-Robbins, F. S., haemoglobin production factors in the human liver. I. Normal, infection, and intoxication. III. Anæmias, A., 970.
- See also Queen, F. B., and Robscheit-Robbins, F. S.
- Whitacre, J. B., and Whitacre-Greer Fireproofing Co., salt-glazing of brick and other clay products, (P.), B., 549.
- Whitacre-Greer Fireproofing Co. See Whitacre, J. B.
- Whitaker, D. M., rate of oxygen consumption by fertilised and unfertilised eggs. IV. *Chaetopterus* and *Arbacia punctulata*. V. Comparisons and interpretation, A., 304.
- Whitaker, R., factors influencing crystallisation of lactose in ice cream, B., 843.
- Whitaker, T. W. See Chester, K. S.
- Whitby, L., solution of magnesium in aqueous salt solutions. I. Effect of impurities. II., A., 233, 1017. Atmospheric corrosion of magnesium, A., 1017. Solution of magnesium and magnesium-base alloys by natural and artificial sea-water, B., 351.
- See also Bengough, G. D.
- Whitcomb, W. O., hard seeds in legumes, B., 84.
- White, Abraham, and Lewis, H. B., metabolism of sulphur. XIX. Distribution of urinary sulphur in the dog after oral administration of bromobenzene as influenced by character of dietary protein and by feeding of L-cystine and D-methionine, A., 89.
- See also Vickery, H. B.
- White, (Miss) Anne, and Hixon, R. M., structure of chloraloses;  $\alpha$ - and  $\beta$ -gluco-chloralose, A., 810.
- White, A. C., physiological action of norconessine, A., 744. Effect of separated fractions of the posterior lobe of the pituitary on fat content of the liver, A., 754.
- See also Stedman, E.
- White, A. H. See Morgan, S. O., and Schultz, J. W.
- White, A. M. See Chrisco, H. F.
- White, A. McL., system ferrous sulphate-manganous sulphate-water at 0° and 25° A., 1013.
- and Sumerford, S. D., studies in agitation. II. Sand concentration as function of sand size and agitator speed, B., 943.
- White, B. See East, E. M.
- White, D. E. See Trikojus, V. M.
- White, F. D., and Green, A. C., comparison of colour tests for fructose, pentoses, and glycuronates in urine, A., 300.
- White, F. L. See Kodak, Ltd.
- White, H. E., aluminium may have a nuclear spin, A., 199. Explanation of the alkali inverted doublets, A., 1221. Hyperfine structure of the vanadium spectrum, A., 1221.
- White, Harold E., electrical resistivity of specialised refractories, B., 19.
- and Lava Crucible Co. of Pittsburgh, refractory articles, (P.), B., 269. Crucible furnace, (P.), B., 631. Refractory articles [for melting glass, metals, etc.], (P.), B., 965.
- and Swann Research, Inc., silicon carbide and calcium carbide, (P.), B., 427.
- White, H. L., micro-conductance cell, A., 248.
- Urban, F., and Atta, E. A. van, correlation of stream potentials and surface conductance, A., 122.
- See also Urban, F.
- White, H. V., surface tension of type-metal alloys, B., 1061.
- White, J., preparation of glycyltaurino and glycylsteic acid, A., 1148.
- White, J. C., Field, M. E., and Drinker, C. K., protein content and normal flow of lymph from the foot of the dog, A., 524.
- White, J. D., and Rose, F. W., jun., isolation of the three xylenes from an Oklahoma petroleum, B., 292. Isolation of ethylbenzene from an Oklahoma petroleum, B., 659.
- White, J. F. See Taylor, M. C.
- White, J. H., Wahl, C. V., and Bell Telephone Labs., workable magnetic compositions containing principally iron and cobalt, (P.), B., 472.
- See also Harris, J. E.
- White, M. G. See Lawrence, E. O.
- White, N. C. See Townend, D.
- White, N. W. See Box, E. R.
- White, P., and Caughley, F. G., relation of fat content of hides to conditions of curing, B., 1070.
- White, T. A., invertase action as a heterogeneous reaction, A., 357.
- White, V. See Moore, C. U.
- White, W. B., poisonous spray residues on vegetables, B., 646.
- White, W. D. See Garvey, B. S., jun.
- White, W. E. See Cady, H. P.
- White, W. P., extra specific heat of cuprous sulphide; specific heat of ferrous oxide, A., 453. Thermal technique, A., 480.
- Whitehead, C. See Whitehead & Sons, Ltd., G.
- Whitehead, H. C., and O'Shaughnessy, F. R., British practice in sewage disposal, B., 206. Treatment of sewage sludge by bacterial digestion, B., 493.
- Whitehead, H. R., and Cox, G. A., factors in the milk of individual cows which modify growth of lactic streptococci, A., 847.
- Whitehead, T. H., qualitative detection of casein in woods, B., 468.
- and Miller, H. S., iodometric determination of copper, A., 245.
- Whitehead, W., Kuhl, H. W., and Celanese Corp. of America, identifiable material [artificial yarns, films, etc.], (P.), B., 699.

- Whitehead & Sons, Ltd., G., and Whitehead, C., air and similar filters, (P.), B., 371.
- Whitehorne, W. R., photographic print, (P.), B., 446.
- Whitehouse, A. G. R., and Ramage, H., permeability of human skin to electrolytes, A., 634.
- Whitehouse, W. J. See Parker, H. M.
- Whitelaw, N. G., multiplet separations and perturbed terms, A., 1220.
- and Van Vleck, J. H., theory of quantum defect due to polarisation, with application to multiplet anomalies in Al II, A., 1221.
- See also Van Vleck, J. H.
- Whitelock, E. J., and Morrison, F. R., two species of prickly-pear growing in New South Wales. I., A., 875.
- Whitescarver, W. F. See Du Pont de Nemours & Co., E. I.
- Whitlatch, G. I., commercial underclays of Indiana, B., 228.
- Whitman, W. G., and Standard Oil Co. of Indiana, filtering process and apparatus, (P.), B., 529.
- Whitmore, B. G., conductivity of weak electrolytes and glycerol solutions with 75-cm. waves, A., 1015.
- Whitmore, F. C., and Badertscher, D. E., yields of aliphatic tertiary Grignard reagents and limits of their usefulness as synthetic reagents, A., 599. Effect of traces of carbon disulphide on the yields of Grignard reagents, A., 1282.
- and Church, J. M., dehydration of  $\beta\beta$ -dimethylhexyl alcohol and related *tert*-alcohols, A., 486.
- and Evers, W. L., tertiary aliphatic carbinols containing an adjacent tertiary hydrogen, the related chlorides, and dehydration products, A., 372.
- and Fleming, G. H., preparation of tetramethylmethane (*neopentane*) and determination of its physical constants, A., 1138. Preparation and properties of *neopentyl* chloride in relation to molecular rearrangements, A., 1271.
- and Herndon, J. M., dehydration of capryl alcohol [*octan*- $\beta$ -ol], A., 1033.
- and Homeyer, A. H., preparation and dehydration of  $\delta\delta$ -dimethylpentan- $\beta$ -ol [methyl*neopentyl*carbinol], A., 1271.
- and Krueger, P. A., dehydration and rearrangement of pinacolyl alcohols and related compounds, A., 591.
- and Langlois, D. P., action of phosphorus pentachloride on ethers, A., 695.
- and Laughlin, K. C., dehydration of  $\beta\gamma\delta$ -trimethylpentan- $\gamma$ -ol, A., 47. Dehydration of *tert*-alcohols containing a *neopentyl* system. II. Methyl*isopropyltert*-butyl-, methyl*di**tert*-butyl-, and methyl*ethylneopentyl*carbinols, A., 1140.
- and Meunier, P. L., rearrangement of *tert*-butylmethylcarbinol (pinacolyl alcohol). II., A., 1140.
- and Rothrock, H. S., rearrangement of *tert*-butylmethylcarbinol (pinacolyl alcohol). I., A., 486.
- and Simpson, C. T., Tschugaev reaction for dehydrating alcohols, A., 1139.
- and Sobatzki, R. J., interconversion of arylmercuric halides and mercury diaryls. I., A., 519.
- Whitmore, F. C., and Stahly, E. E., common basis of intramolecular rearrangements. II. Dehydration of *di**tert*-butylcarbinol and conversion of the resulting nonenes into trimethyl-ethylene and *isobutene*, A., 1271.
- Stehman, C. J., and Herndon, J. M., hexamethylethane, A., 1138.
- and Thorpe, M. A., reaction of iodine monochloride with organic mercury compounds, A., 407.
- and Williams, F. E., aliphatic *tert*-alcohols and chlorides containing the *n*-amyl group and the related olefines and their ozonolysis, A., 255.
- and Woodburn, H. M., aliphatic *tert*-alcohols and chlorides containing *n*-butyl groups, A., 255.
- See also Beattie, R. W., Evers, W. R., Homeyer, A. H., and Laughlin, K. C.
- Whitmore, M. R., aircraft finishing, B., 237.
- Whitmore, W. F. See Gardner, W. H.
- Whitnah, C. H., mechanically operated burette, A., 1135.
- Riddell, W. H., and Hodgson, R. E., effect of increased blood-glucose on milk-sugar, A., 1186.
- Whitney, C. E. See Bartell, F. E.
- Whitsitt, M. L., vitamin-B ( $B_1$ ) and -G ( $B_2$ ) content of cottonseed products, B., 1082.
- Whittaker, C. M., influence of vat dyes on tendering of cellulose when exposed, B., 187. Influence of vat dyes on tendering of cotton when exposed, B., 586.
- Whittaker, R. M., preparation of 5-bromofuroic acid, A., 613.
- Whitmore, M., and Kuschke, B. M., relationships of potash fertilisation and varieties of potatoes to table value, B., 243.
- Whittick, G. C., and Smythe, J. A., Roman copper from Wigtownshire and North Wales, A., 1268.
- Whittier, E. O., buffer intensities of milk and milk constituents. II. Buffer action of calcium phosphate, A., 1319.
- Gould, S. P., Bell, R. W., Shaw, M. B., and Bicking, G. W., commercial casein; relationship between laboratory tests and coating quality, B., 1032.
- Whitworth, C. See Campbell, C.
- Whitworth, F., "false" set of cement, B., 868.
- Whitworth, H. F. See Ragatt, H. G.
- Whorton, L., and Whorton Pharmacal Co., solution of acetylsalicylic acid, (P.), B., 219.
- Whorton Pharmacal Co. See Whorton, L.
- Whyte, S. See Gramophone Co.
- Whyte, W. C., and Electro-Alloys Co., [case-hardening] retort, (P.), B., 673.
- Whytlaw-Gray, R. See Denbigh, K. G., and Woodhead, M.
- Wiarda & Co., J. C. See Laury, N. A.
- Wiardi, P. W. See Jansen, B. C. P.
- Wibaut, J. P., mode of retention of sulphur by carbon, A., 563.
- and Gitsels, J. W. P. L., dehydrometanicotine, A., 517.
- and Hackmann, J. T., reduction of 3:2'-nicotyrine to dihydronicotyrine and to inactive nicotine; catalytic disproportioning of dihydronicotyrine into nicotine and nicotyrine, A., 77.
- and La Bastide, G. L. C., tri-(2-pyridyl)-amine, A., 835.
- Wibaut, J. P., Lande, L. M. F. van de, and Wallagh, G., bromination of bromobenzene in the gaseous phase at high temperatures; *m*-directing influence of the bromine atom above 450°, A., 942.
- and Oosterhuis, A. G., synthesis of  $\alpha$ -nicotine, 2-(2'-pyridyl)-1-methylpyrrolidine, A., 1312.
- and Overhoff, J., conversion of 2:6-dichloro-4-cyanopyridine and 2:6-dibromo-4-cyanopyridine into dihalogenopyridylmethyamines, A., 282.
- and Proost, W., catalytic dehydrogenation of pyrroline, and conversion of pyrroline into a mixture of pyrrole and pyrrolidine in presence of a platinum catalyst, A., 615.
- See also Jansen, B. C. P.
- Wiberg, E., and Schuster, K., action of phosphorus trichloride on boron tribromide, A., 917. Dimethylamino-substituted boron trichlorides, A., 917. Different chemical compounds of the formula  $BCl_2.NMe_2$ , A., 917.
- See also Stock, A.
- Wicher, C. See Potonié, R.
- Wichern, G., analytical determination and significance of hygroscopic moisture in superphosphate, B., 384.
- Wick, G. C., motion of an electron in a crystalline lattice, A., 3. Interaction of neutrons and protons, A., 995. Magnetic moment of a rotating hydrogen molecule, A., 997.
- See also Segrè, E.
- Wick, H. See Erdey-Grúz, T.
- Wickenden, L. See Ehrhart, E. N., and Wadsworth, D. V.
- Wickom Aktiebolaget, waterproof and cleansable ironed linen, (P.), B., 345.
- Widdell, H. E., refining of crude oil, (P.), B., 536.
- Widdows, S. T., and Lowenfeld, M. F., composition of human milk; influence of the method of extraction on the fat percentage, A., 1187.
- Widdowson, E. M., urine- and serum-proteins in nephritis, A., 1071.
- Widell, E. G. See Westinghouse Lamp Co.
- Widmann, E. See Schneider, Erich.
- Widmark, E. M. P., maximal limits of alcohol consumption, A., 633.
- and Ahldin, G., oxalic acid content of vegetable foods, A., 1342.
- and Glimstedt, G., antiscorbutic vitamin and glycuronic acid, A., 542.
- Widmer, A., Braun, F., and Kalberer, O. E., behaviour of sulphurous acid in fruit juices, B., 90.
- Wiede, R., Gaddy, V. L., and Heins, C., jun., solubility of nitrogen in water at 50°, 75°, and 100° from 25 to 1000 atm., A., 455.
- and Tremearne, T. H., solubility of nitrogen in liquid ammonia at 25° from 25 to 1000 atm., A., 456.
- Wieber, O., pigmented water-finishes [for leather], B., 114.
- Wiede's Carbidwerk Freyung m.b.H. See Ancot, E.
- Wiedemann, E. See Stoll, A.
- Wiedmann, F., mastitis and carbohydrate deficiency, A., 416.
- Wiegand, E., and Allgem. Electricitäts Ges., electron-emitting material, (P.), B., 594.
- See also Gen. Electric Co.
- Wiegand, J. A., determination of copper and lead in potable water, B., 446.

- Wiegand, W. B., high-colour carbon black, (P.), B., 31.
- and Venuto, L. J., carbon black, (P.), B., 774.
- Wiegel, E., pasting of potato starch, especially by different heat treatments, A., 463. Influence of small quantities of electrolytes on the course of gelatinisation of potato starch by heat, A., 568. Gelatinisation of potato starch, B., 841.
- Wiegner, G. [with Gessner, H.], action of soil on cement and concrete, B., 467.
- Wieland, H., and Dane, E., bile acids. XLIV. 6-(formerly 13)-Hydroxyallocholic acid. XLV. 3:12-Dihydroxycholeonic acid and apocholic acid. L. Complete structure and nature of ring D. LII. Point of attachment of the side-chain, A., 64, 158, 609, 1161.
- Dane, E., and Martius, C., bile acids. XLIX. Stereochemistry of bile acids and sterols, A., 504.
- and Höchtlein, A., reactions of *aci*-nitro-salts and silver fulminate, A., 1163.
- and Hölscher, F., *Strychnos* alkaloids. XII. Reaction with Grignard reagent and other reactions, A., 170.
- Hölscher, F., and Bose, P. K., *Strychnos* alkaloids. XIV. Vomidinine, A., 1312.
- and Kapitel, W., bile acids. XLVI. Acetylation of cholic acid and some reactions of its acetylated derivatives, A., 158.
- and Kairo, K., *Strychnos* alkaloids. XIII. Degradation of oximinostyrych-nine, A., 1175.
- and Kennelly, M. A., bile acids. LI. Bromination of bilanic acid and of some other keto-acids, A., 1049.
- and Kishi, S., bile acids. XLVII. Two new acids from ox-bile, A., 274.
- Metzger, H., Schöpf, C., and Bülow, M., leucoprotein, the wing-pigment of common white butterflies (*Pieridae*), II., A., 1310.
- and Posternak, T., bile acids. XLVIII. Bromination of pyrodeoxybilanic acid, A., 274.
- and Savag, M. G., mechanism of oxidation processes. XXXIII. Dehydrogenation reactions with butyric acid bacteria, A., 536.
- and Sonderhoff, R., mechanism of oxidation process. XXXII. Enzymic oxidation of acetic acid by yeast. XXXIV. Anaërobie fermentation of citric acid by yeast, A., 32, 865.
- and Varvoglis, G., *Strychnos* alkaloids. XV. Deoxyvomidine and oximinovomidine, A., 1312.
- and Wille, F., mechanism of oxidation processes. XXXV. Aërobie dehydrogenation of alcohol by yeast, A., 865.
- Wieland, K., thermo-optical dissociation of sulphur dioxide, A., 6.
- Wieler, A., effect of acids on assimilation in woody plants, B., 1025.
- Wiemann, synthesis of vinylpropenyl glycol, A., 255.
- See also Lespiau, R.
- Wien, M., conductivity and dielectric constant of liquids in high-frequency fields, A., 1015.
- Wienbeck, J., phosphates content of the muscle of animals with tumours, A., 1070.
- Wienhoven, J. F. See Katz, J. R.
- Wieninger, F. M., measurement of beer foam, B., 328. Rapid method of nitrogen determination, B., 487.
- Wierciński, J., chromometric method of determination of NO<sub>2</sub>, A., 583.
- Wiersma, E. C. See De Haas, W. J.
- Wiertelak, J., effect of decay caused by white rot fungi on chemical composition of wood, A., 990. Influence of mild hydrolysis on chemical composition of wood, B., 299.
- Wies, C. H., and McGarvey, S. M., effects of variations in preparation of a starch substrate in amylase viscosimetry, A., 93.
- See also Thompson, W. R.
- Wiese, H. F., and Palmer, L. S., substances adsorbed on fat globules in cream and their relation to churning. I. Churnability of artificial emulsions prepared with the known emulsifying agents of cream, B., 122.
- See also Palmer, L. S.
- Wieseneder, H., plagioclase in the trachydolerite of Pauliberg, Burgenland, A., 692.
- Wiesman, C. K. See Buswell, A. M.
- Wiesner, B. P., and Haddow, A., gonadotropic hormones and cancer, A., 852.
- and Sheard, N. M., sex behaviour of hypophysectomised male rats, A., 1338.
- Wiesner, F., apparatus for drying and conveying ground material in ball mills and similar plant, (P.), B., 816.
- Wiesner & Malik. See under Wiesner, F.
- Wiesner, M. See Schöberl, A.
- Wiest, P., relation between separation processes of single and poly-crystals, A., 1105.
- See also Glocker, R.
- Wiester, H. J., martensite crystallisation followed cinematographically, A., 119.
- See also Hanemann, H.
- Wieth-Knudsen, N. See Kopfermann, H.
- Wietzel, G. See I. G. Farbenind.
- Wieżewich, P. J., and Standard Oil Development Co., treatment of wood, (P.), B., 868.
- Turner, L. B., and Frolich, P. K., [organic] sulphur compounds derived from petroleum, B., 375.
- See also Standard Oil Development Co.
- Wigand, J. See Spengler, O.
- Wiggin & Co., Ltd., H., and Stockdale, J., treatment of corrosion- or heat-resisting alloys to remove oxide scale therefrom, (P.), B., 195.
- Wigginton, R., combustion of carbon, B., 451.
- Wight, E. H. See Ober, B.
- Wightman, R. J. See Feldmeier, H.
- Wigner, E., crossing of potential thresholds in chemical reactions, A., 30. Mass defect of helium, A., 334. Scattering of neutrons by protons, A., 763. Paramagnetic transformation of para-ortho-hydrogen. III., A., 1256.
- and Seitz, F., constitution of metallic sodium, A., 660.
- Wiig, E. O., low-pressure hydrogen-oxygen reaction on platinum, A., 913.
- and Wisconsin Alumni Research Foundation, method and means for leavening, (P.), B., 283.
- See also Schumacher, H. J.
- Wijk, A. van. See Reerink, E. H.
- Wijk, D. J. van, determining the swelling of vulcanised rubber in organic liquids by means of a voluminometer, B., 318. Voluminometer for determining the swelling of vulcanised rubber in organic liquids, B., 400.
- Wijk, W. R. van. See Ornstein, L. S.
- Wijkman, N. See Sutter, H.
- Wijkström, T. See Odén, S.
- Wikeroyna, (Mlle.) C. See Centnerszwer, M.
- Wilander, O. See Agren, G., and Hammersten, E.
- Wilbor, O. J. See Guthrie, R. G.
- Wilborn, F., Löwa, A., and Wachholtz, F., changes in weight, abrasion-resistance, and scratch-hardness of stand oil paint films on indoor and outdoor exposure, B., 76.
- Wilbrandt, W., and Laszt, L., cause of selective absorption of sugar from the intestine, A., 630.
- Wilbur, J. W., Hilton, J. H., and Hauge, S. M., vitamin-A activity of butter produced by Guernsey and Ayrshire cows, B., 603.
- See also Hilton, J. H.
- Wilbur White Chemical Co. See Sherman, J. M.
- Willeke, A. See Dieterle, H.
- Wilcke, P. See Sehering-Kahlbaum A.-G.
- Wilcox, D. E. See Russell, W. C.
- Wilcoxon, F., colloidal [copper] metal products, (P.), B., 588.
- and Crop Protection Inst., fungicide [for treating seeds], (P.), B., 86.
- and Hartzell, A., factors affecting efficiency of contact insecticides. III. Further chemical and toxicological studies of pyrethrum, B., 324.
- See also McCallan, S. E. A.
- Wild, W. See Spence, R.
- Wild-Barfield Electric Furnaces, Ltd., Foster, C. E., and Oram, J. E., [electric] furnaces, (P.), B., 554.
- Wilde, W. D. See Oldham & Son, Ltd.
- Wilder, J., and Wilder Metal Co., coating of ferric articles with a metallic protective, (P.), B., 632.
- Wilder, O. H. M., Bethke, R. M., and Record, P. R., iodine content of hens' eggs as affected by the ration, B., 1080.
- Wilder, W. See Bethke, R. M., and Hunt, C. H.
- Wilder Metal Co. See Wilder, J.
- Wilderman, M., and Wilderman, P., porous soft to hard rubber separators, diaphragms, etc., (P.), B., 80.
- Wilderman, P. See Wilderman, M.
- Wildman, E. A., double-decomposition reaction, A., 242. Nomenclature of the electron, A., 1097.
- Wildner, H., distribution of the tannin and bitter principles in hops, B., 984.
- Wildschut, A. J., mol. wt. and chain-length of natural and synthetic rubber, A., 1300. Microscopical examination of rubber, B., 880.
- Wildt, R., methane in the atmospheres of large planets, A., 6. Absorption spectra and atmospheres of the major planets, A., 1100. Ozone in the atmosphere of planets, A., 587.
- Wiley, F. H., and Wiley, L. L., inorganic salt balance during dehydration and recovery, A., 858.
- Wiley, L. L., and Waller, D. S., effect of ingestion of sodium, potassium, and ammonium chlorides and sodium hydrogen carbonate on the metabolism of inorganic salts and water, A., 857.
- Wiley, L. L. See Wiley, F. H.
- Wiley, M. See Ramage, A. S.
- Wiley, W. J., acidity of cream and keeping quality of butter made from it, with special reference to neutralisation of cream, B., 409.

- Wilford, A. T., fumes from motor vehicles, with particular references to those fitted with heavy-oil engines, B., 375.
- Wilhelm, A. F. See Schaffnit, E.
- Wilhelm, H., and Jahn, L., ageing brittleness of open-hearth steel prepared from scrap, B., 1058.
- Wilhelm, H. A., band spectra produced by explosion mixtures, A., 112.
- Wilhelm, J. O. See Burton, E. F., and McLennan, J. C.
- Wilhelm, R. D. See Firestone Tire & Rubber Co.
- Wilhelmi, A., prevention of cracking in slag ladles, B., 831.
- Wilhelmy, W., ionisation of inert gases by X-rays, A., 761.
- Wilke, E., molecular conductivity of the hydrogen halide acids and nitric acid at high concentrations, A., 908.
- and Schränker, W., theory of concentrated solutions, V., A., 128.
- Wilkes, B. G., and Palmer, E. T., similarity of the kinetics of invertase action *in vivo* and *in vitro*, II., A., 93.
- Wilkes, G. B., thermal conductivity of magnesite brick, B., 387.
- Wilkie, J. B., mercerisation of cotton for strength, B., 462.
- Wilkins, E. T., apparatus for separating [finely-divided] solids from liquids, (P.), B., 208.
- Wilkins, R. A., herculoy—a copper-silicon-tin-zinc alloy, B., 1061.
- and Revere Copper & Brass, Inc., [brass] alloy, (P.), B., 111. [Copper] alloy, (P.), B., 592.
- Wilkins, T. R., and Wolfe, R., new relations in photographic effects of  $\alpha$ -rays, A., 238. Response of a photographic emulsion to  $\alpha$ -rays, A., 1127.
- Wilkins, W. E. See Cullen, G. E.
- Wilkinson, A., and Ellis, A. T., gas filters, (P.), B., 256.
- Wilkinson, D. G. See Heilbron, I. M.
- Wilkinson, J. A. See Wendt, L.
- Wilkinson, J. F., and Klein, L., relationship between anti-anemic principles in stomach and liver, A., 1069.
- See also Klein, L.
- Wilkinson, W. D. See Gaudin, A. M.
- Wilks, B. G. See Nelson, J. M.
- Will, H., drugs and their adulteration, B., 1035.
- Will & Baumer Candle Co., Inc. See Geller, L. W.
- William, J. J., Clark, E. W., and Hager, O. B., determination of liquefying power of diastase, A., 425.
- Willard, C. L., and Transit Mixers, Inc., mixing or agitating device, (P.), B., 369.
- Willard, H. H., and Winter, O. B., volumetric determination of fluorine, A., 242.
- and Young, P., ceric sulphate as a volumetric oxidising agent. XIV. Indicator methods for standardisation and use of ceric sulphate, A., 1025. Indicators for determining chromium and vanadium in alloy steels; oxidised diphenylaminesulphonic acid and oxidised diphenylamine, B., 550. Determination of chromium and vanadium in alloy steels, B., 550.
- Willard, M. L. See Detwiler, E. B., and Sandrus, H. J.
- Willard, R. E., and Briquet Eng. Co., binder and [coal] briquette, (P.), B., 454. [Coal] briquettes, (P.), B., 534.
- Willard Storage Battery Co. See Rose, C. C.
- Willavoys, H. J. See McBain, J. W.
- Willcock, R. B., bleacher for sepia toning, B., 93.
- Willcox, D., [cooling the windings of an] electric induction furnace, (P.), B., 433.
- Wille, A. See Hilpert, S.
- Wille, F., buffer capacity [of plant saps] and the incidence of plant disease, A., 653.
- See also Wieland, H.
- Willets, P. G., and Hartford-Empire Co., refractory for contact with molten glass, (P.), B., 269. [Bauxite] refractory, (P.), B., 917.
- Willets, W. R.,  $\alpha$ -cellulose in pulp, B., 423.
- Opacifying of paper by means of titanium pigments, B., 1002.
- Willey, A. R. See Kinney, C. R.
- Willey, E. J. B., free radicals in the electric discharge, A., 1232.
- Willheim, R., and Scholl, F., determination of small amounts of unsaturated fatty acids in biological fluids, A., 1185.
- and Stern, K., glutathione content of blood in cancer, A., 628.
- Williams, A. D., utilisation of the fuel in siderurgy, B., 868.
- Williams, A. E., dextrin: its properties and manufacture, B., 246. Maize starch [and oil], B., 441. Synthetic resinous products, B., 755. Glucose from the manioc plant, B., 887.
- Williams, A. F., and Williams Patent Crusher & Pulverizer Co., pulveriser, (P.), B., 769.
- Williams, A. O., and Amer. Cyanamid Co., calcium carbide, (P.), B., 547.
- Williams, A. S., apparatus for developing heat by electricity, (P.), B., 795.
- Williams, A. T., absorption spectra of metallic colloidal solutions, and emission and absorption of metallic films, A., 112.
- See also Zappi, E. V.
- Williams, C. B. See Skinner, J. J.
- Williams, C. E., and Sullivan, J. D., residual metals in open-hearth steel, B., 65.
- Williams, C. F., seasonal variations in nitrogen concentration in twigs of peach trees under sand-hill conditions, A., 198. Effect of applications of sodium nitrate to peach trees during dormancy, B., 680.
- Williams, C. H. B., and Follett-Smith, R. R., field experiments with sugar cane, 1931—1932, B., 563, 884.
- Williams, C. W., air filter, (P.), B., 770.
- Williams, D. M., reaction between ethylene and bromine in carbon tetrachloride, A., 142.
- Williams, E. See Soper, F. G.
- Williams, Edward F., jun., and Nash, T. P., jun., is blood-protein amid-nitrogen a source of urinary ammonia? III. Question of the synthesis of protein amides from ammonia. IV. Aeration set for use in the transfer and measurement of small quantities of ammonia, A., 627, 738.
- Williams, Eugene F. See McInerny, R. J.
- Williams, E. J., spectrum and latitude variation of penetrating radiation, A., 443.
- Williams, E. T. See Churchill, J. B.
- Williams, E. T. R. See Mitchell, S. A.
- Williams, F. E. See Whitmore, F. C.
- Williams, F. Eleanor. See Kellaway, C. H.
- Williams, F. J., preparation of permeable extraction thimbles for laboratory filtration, A., 1136.
- Williams, F. T., and McCoy, E., calcium-precipitating bacteria from mud of a fresh-water lake, A., 640.
- Williams, G. C., and Ragatz, R. A., effect of sodium carbonate on low-temperature reduction of iron ores, B., 108.
- Williams, G. D., and Fulton, C. G., microscopical identification of heroin, B., 1084.
- Williams, G. K., continuous refining of lead bullion, B., 66. Apparatus [kettle] for use in refining lead bullion and similar operations, (P.), B., 312. Continuous lead refinery at the works of the Broken Hill Associated Smelters Proprietary, Ltd., Port Pirie, S. Australia, B., 391.
- Williams, H. A. See Berryhill, W. R.
- Williams, H. B. See Potter, F. M.
- Williams, H. E. See Manchester Oxide Co.
- Williams, H. K., air-conditioning for railway passenger cars, B., 253.
- Williams, H. M., Bihlman, F. W., and Gen. Motors Res. Corp., apparatus for comminuting metals [of high m.p. by atomisation], (P.), B., 634.
- Boegehold, A. L., and Gen. Motors Res. Corp., dynamo brush, (P.), B., 273.
- Williams, I., and Walker, H. W., effect of oxygen and water on polymerisation of chloroprene, B., 277.
- See also Du Pont de Nemours & Co., E. I.
- Williams, J. E., colour photography, (P.), B., 572.
- Williams, J. F., precipitation of calcium carbonate [in sugar-juice clarification], B., 120.
- Williams, J. H., relative intensities and transition probabilities of the K-series lines of the elements 24—52 by the ionisation chamber method, A., 993.
- Williams, J. L., and Dick, G. F., decreased glucose tolerance in acute infectious diseases, A., 180. Excretion of non-protein-nitrogen by the intestine, A., 854.
- See also Hickinbottom, A. R.
- Williams, J. W., effect of human blood-serum on (a) toxicity of bile salts, (b) bile salt haemolysis, A., 296.
- Williams, John Warren, dipole moments of benzene derivatives with freely rotatable substituents, A., 448.
- and Hollaender, A., molecular scattering of light from ammonia solutions; fine structure of a vibrational Raman band, A., 6.
- See also Clark, J. D., Hollaender, A., Oncley, L. J., and Winning, C. H.
- Williams, K. T. See Collins, W. D.
- Williams, M. L., soft X-rays from (100) and (111) faces of copper single crystals, A., 1222.
- Williams, N. H. See Dent, F. J., and Wood, J. W.
- Williams, P. See Sunderman, F. W.
- Williams, P. S., cooling of crystals for X-ray scattering measurements, A., 801.
- See also Johnson, S. P.
- Williams, R., contribution of clay and organic matter to base-exchange capacity of soils, B., 34. Determination of exchangeable bases in carbonate soils, B., 34.
- Williams, R. C., boundary lubrication by soap solutions, A., 122. Deposition of chromium on glass, B., 1063.
- See also McBain, J. W.
- Williams, R. D. See Urban, F.



- Williams, R. J., and Honn, J. M., rôle of "nitrilites" in nutrition of moulds and other fungi, A., 317.
- and Lyman, C. M., [ammonium acetate as a buffer], A., 29.
- Lyman, C. M., Goodyear, G. H., Truesdail, J. H., and Holiday, D., pantothenic acid, a growth determinant of universal biological occurrence, A., 982.
- Williams, R. T. See Pryde, J.
- Williams, S. E., photographic method for deriving the optical constants of the metals, A., 210.
- Williams, S. R., Joule magnetostriuctive effect in a group of cobalt-iron alloys, A., 14. New form of dew-point hygrometer, A., 1266.
- Williams, T. R. See Hopkinson, H.
- Williams, V., character and composition of disinfectant soaps, B., 513.
- Williams, V. H. See Imperial Chem. Industries.
- Williams, W., and Investors Managing Trust, Ltd., non-splinterable lenses, and other forms of non-splinterable or laminated glass, (P.), B., 62.
- Williams, W. E., interferometry. II. Construction, testing, and use of reflexion echelons for the visible and ultra-violet regions, A., 1134.
- and Middleton, A., fine structure of the resonance Ag r lines, A., 656.
- Williams, W. G., and Byrnes, Townsend, & Potter, fractional distillation, (P.), B., 769.
- Williams, W. H., and Dow Chem. Co., aromatic amino-compounds, (P.), B., 220.
- Williams, W. L., Weaver, R. H., and Scherago, M., modified Eijkman test for water analysis, B., 894.
- Williams, W. N. See Stream-Line Filter Co.
- Williams, W. W., and Williams Oil-O-Matic Heating Corp., mixed oil gas and producer gas, (P.), B., 534.
- Williams, Ltd., J. W., and Stoppard, A., [yarn-winding machine for] treatment of [waxed], yarns or threads, (P.), B., 665.
- Williams Oil-O-Matic Heating Corporation. See Williams, W. W.
- Williams Patent Crusher & Pulverizer Co. See Williams, A. F.
- Williamson, A. T., automatic Töpler pump, A., 249. Hydrogen-oxygen reaction; adsorption of hydrogen on pyrex and quartz, A., 572.
- Williamson, J. T. See Tidmore, J. W.
- Willmott, S. G., solanine poisoning, A., 977.
- Willink, A., chromium plating at high current densities, B., 109. Base metals used in industrial chromium-plating applications, B., 109.
- Willis, L. G., effect of liming soils on availability of manganese and iron, B., 83. Oxidation-reduction potentials and hydrogen-ion concentration of a soil, B., 162.
- Willis, W. H., and Walker, R. H., anaërobic nitrogen fixation in Iowa soils, B., 726.
- Wills, A. P., and Boeker, G. F., diamagnetism of water at different temperatures, A., 212.
- Wills, L., hæmopoietic factor in marmite, A., 970.
- Wills, L. A. See Breit, G.
- Willshaw, H. See Dunlop Rubber Co.
- Willson, H. S. See Hill, A. E.
- Willstaedt, H., red dye of the lobster shell, A., 411.
- and Reuter, F., dibromopicric acid, A., 60.
- Reuter, F., and Zirm, K. L., peroxidative action. II. Constitution of purpurobenzidine, A., 154.
- See also Reuter, F.
- Willstätter, M. See Kallmann, H.
- Willstätter, R., photo-reduction of carbonic acid by chlorophyll, A., 577.
- and Rohdewald, M., intracellular enzymes of tissues and glands. II. Pancreatic desmotrypsin, A., 864.
- Wilm, D. See Hofmann, Ulrich.
- Wilmet, and Reglade, determination of free sulphur in chrome leather, B., 838.
- Wilshaw, R. G. H. See Savage, H. E. F.
- Wilsing, H. See Pummerer, R.
- Wilson, A. H., internal photo-electric effect in crystals, A., 114. Theory of metals. I., A., 116.
- Wilson, Alma L., relation of hydrogen-ion concentration to growth of onions, B., 644.
- Wilson, Amyuil L., Hulse, S. H., and Standard Oil Development Co., centrifugal liquid and gas separator, (P.), B., 609.
- Wilson, B. D., and Plice, M. J., buffer capacity of peat soils, B., 643.
- Staker, E. V., and Townsend, G. R., reaction and calcium content of drainage water from peat deposits in New York, B., 34.
- and Townsend, G. R., correction of unproductivity of a peat soil for lettuce, B., 1073.
- Wilson, (Miss) B. M. See Britton, H. T. S.
- Wilson, C., biological control as affecting [waterworks'] plant operation, B., 125.
- Wilson, Clifford, and Holiday, E. R., rapid method for obtaining protein-free ultrafiltrates of blood and plasma, A., 1065.
- Wilson, C. C. See Calhane, D. F.
- Wilson, C. D., Parker, G. T., and Laughlin, K. C., glass packing for laboratory fractionating columns, A., 926.
- Wilson, C. H., determination of organic sulphur in gas, B., 209.
- Wilson, Christopher L. See Burton, H.
- Wilson, Curtis L., Silliman, H. F., and Little, E. C., rate of precipitation of nickel silicide and cobalt silicide in the hardenable copper-nickel-silicon and copper-cobalt-silicon alloys, A., 455.
- Wilson, C. T. R., new type of expansion apparatus, A., 1266.
- Wilson, C. V. See Allen, C. F. H.
- Wilson, D. A., and Gordon, N. E., action of electrolytes on wool fibre, B., 1053.
- See also Ott, Emil.
- Wilson, D. M., rapid and accurate analysis of bituminous materials, B., 738.
- Wilson, D. P., improved method of orienting minute specimens for section cutting, A., 1266.
- Wilson, E. D., relative toxicity of pyrethrins I and II., B., 1035.
- Wilson, E. O. See Hsiao, C. C., and Hsieh, W. C.
- Wilson, F. J., Caldwell, W. A., Chapman, J., and Goodwin, H. W., interaction of acetonephenylhydrazone and phenylcarbimide, A., 603.
- See also Thomson, J. K.
- Wilson, G. V., and Nerristown Magnesia & Asbestos Co., treating amphibolic material for transportation, (P.), B., 829.
- Wilson, Harwell. See Beard, J. W.
- Wilson, Hewitt, and Cunliffe, J. A., refining of Pacific Northwest kaolins by air-floatation, B., 387.
- and Page, G. A., simple dispersion test for clays, B., 268.
- Wilson, H. A., chemical equilibrium in vapour of a mixture of hydrocarbons, A., 569.
- Wilson, H. E. C., labile rôle of sulphur in metabolism, A., 743. Renal hypertrophy in rats fed on a high-protein diet, A., 1192.
- Wilson, J. See Triplex Safety Glass Co.
- Wilson, J. A., stability of vegetable tan liquors, B., 240. Preparation of liquid coating composition, (P.), B., 1019.
- and Merrill, H. B., analysis of leather, B., 838.
- See also Dunlop Rubber Co.
- Wilson, J. B., identification of flavouring constituents of commercial flavours. II. Detection and qualitative separation of classes, B., 42.
- and Keenan, G. L., identification of flavouring constituents of commercial flavours. III. Identification of  $\gamma$ -undecolactone, B., 937.
- Wilson, J. C., high-frequency electric discharges in gases, A., 440.
- Wilson, J. D., and Runnels, H. A., detrimental effects of spraying tomatoes with Bordeaux mixture, B., 404. Influence of spray materials on [plant] transpiration, B., 566.
- and Tilford, P. E., use of formaldehyde dust with vegetable seedlings, B., 566. Use of formaldehyde dust in growing seedlings, B., 645.
- See also Runnels, H. A.
- Wilson, J. D. O. See Robertson, T. B.
- Wilson, J. K., and Higbee, H. W., presence and distribution of sulphofying bacteria in mineral and peat soils, B., 164.
- Wilson, J. L. See Glockler, G.
- Wilson, J. S., sonic nephelometer, A., 585.
- See also Imperial Chem. Industries.
- Wilson, L. B., effects of chlorine, bromine, and fluorine on the tobacco plant, A., 988.
- Wilson, M. J. See Irving, L.
- Wilson, N. See Wedgwood & Sons, Ltd., J.
- Wilson, P. J., jun. See Koppers Co. of Delaware.
- Wilson, P. W., and Commercial Solvents Corp., propionic acid fermentation, (P.), B., 1031.
- and Fred, E. B., effect of  $p\text{CO}_2$  on the nitrogen-fixation process of certain leguminous plants, A., 647.
- Fred, E. B., and Salmon, M. R., relation between carbon dioxide and elemental nitrogen assimilation in leguminous plants, B., 323.
- Wenck, P., and Peterson, W. H., statistical study of nitrogen fixation by clover plants, B., 323.
- See also Almon, L., Hopkins, E. W., and Woodruff, J. C.
- Wilson, Ralph E. See Fescol, Ltd.
- Wilson, Robert E., and Standard Oil Co., pressure distillation of hydrocarbon oils, (P.), B., 854. Gas machine [for carburetting air with gaseous hydrocarbons], (P.), B., 953.
- Wilson, R. H., absorption of nitrite after oral ingestion of "bismuth subnitrate," A., 1328.

- Wilson, S. D., Ma, C. M., and T'ien, Y. L., butyl and amyl ethers of naphthols and some of their derivatives, A., 708.
- Wilson, W. C., and Cellovic, Inc., low-viscosity nitrocellulose, (P.), B., 698.
- Wilson Co., H. A. See Waltenberg, R. G.
- Wilster, G. H. See Price, F. E.
- Wiltshire, E. R., and Menzies, R. C., applications of thallium compounds in organic chemistry. VIII. Molecular association of dialkylthallium chelate compounds, A., 56.
- See also Menzies, R. C.
- Wiltshire, J. L., sulphuric acid as a [rubber] latex coagulant, B., 200. Variability of sheet [rubber] prepared under laboratory conditions, B., 239.
- and Fullerton, R. G., properties of clone rubber, I., B., 239.
- Wimmer, G. See Krüger, W.
- Wimmer, J. See Mugdan, M.
- Winans, C. F., and Adkins, H., preparation of amines by catalytic hydrogenation of derivatives of aldehydes and ketones, A., 700. Synthesis and reactions of nitrogen ring-compounds over nickel, A., 1303.
- Winans, J. G., origin of the mercury bands at 2480 Å., A., 200. Effect of heat on mercury bands, A., 1096.
- See also Cram, W.
- Winch, G. T. See Gen. Electric Co.
- Winch, W. R. See Ingersoll, L. R.
- Winchell, A. N., lepidolite system, A., 928.
- Winchester Repeating Arms Co. See MoNutt, J. D., and Smith, P. A.
- Winkelmann, J., new methods of qualitative micro-analysis, A., 135.
- Winkler, G. A. F. See Gen. Electric Co.
- Winkler, M., heating of substances by circulation of steam, (P.), B., 687.
- Windaas, A., constitution of cholesterol and of the bile acids, A., 270. Conversion of sterols into aromatic compounds, A., 1047. Antirachitic preparations, (P.), B., 732.
- and Deppe, M., rhamnol, A., 1165. Tetracarboxylic acid,  $C_{27}H_{44}O_8$ , from cholesterol, A., 1295.
- Tschesche, R., and Rnhkopf, H., antineuritic vitamin. II., A., 1089.
- Werder, F. von, and Lüttringhaus, A., tachysterol, A., 62.
- Windhausen, O. See Dinslage, E.
- Windsor, M. M., and Blanchard, A. A., nickel carbonyl; mechanism of its formation from nickel sulphide and carbon monoxide, A., 686.
- Windsor-Bowen, E., electrolytic treatment of aluminium or its alloys, (P.), B., 874.
- See also Gower, C. H. R.
- Windt, O. H., confectionery dehydration with starch, B., 761.
- Wing, H. J. See Smith, W. H.
- Wing, M. See Noble, I. T.
- Wingert, W. B., and Semet-Solvay Co., direct recovery of ammonium sulphate from hot gas, (P.), B., 693.
- Winget, Ltd., and Martinez, H., crushing and mixing mills of the edge-runner type, (P.), B., 528.
- Winiker, K., optimum ratios of drier combinations (Pb-Mn, Pb-Co, and Pb-Mn-Co) for boiled linseed oil, B., 275.
- Winkel, A. See Heukeshoven, W., and Jander, G.
- Winkelmann, H. A., and Goodrich Co., B. F., composition [from rubber], (P.), B., 801.
- Winkelmann, K. See Schmalfuss, Hans.
- Winkelmann, W. See Schmid, Alfred.
- Winkelmüller, W. See Schiemann, G.
- Winkler, A. See Esser & Co., G.m.b.H., E.
- Winkler, C. A., and Maass, O., surface tension of liquids near the critical temperature, A., 1105.
- Winkler, E. C., and Goller, H., disem-bittering and improving soya beans or similar legumes, (P.), B., 249.
- Winkler, H. See Diels, O.
- Winkler, H. von, improving the odour of unsaturated light oils, B., 99.
- Winkler, J. See Burstin, H., and Piotrowski, W. von.
- Winkler, K., and Vogel, R., equilibrium diagram of the system iron-nickel-tungsten, A., 18.
- Winkler, K. C. See De Jong, H. G. B.
- Winkler, L. W., analysis of alkali bromides, B., 145. Stability of essential oils, B., 284. Detection and determination of iron in drinking water, B., 334. Rapid semi-micro-determination of carbon dioxide in air, B., 366. Detection and determination of manganese in drinking water, B., 366. Detection and determination of free chlorine in chlorinated drinking water, B., 414. Accuracy of the rapid semi-micro-determination of carbon dioxide in air, B., 493. Ash value of charcoal, B., 577. Approximate determination of sulphate in drinking water, B., 654. Iodine-bromine values [of oils and fats as determined] by the rapid method, B., 878.
- Winkler, S. See Helferich, B.
- Winkler & Co., G.m.b.H., K., improving the properties, especially the strength and imperviousness to water, of cement mortar, plaster, and concrete, (P.), B., 307.
- Winks, F. See Parkin, M.
- Winn, A. G., photo-electric spectrophotometer, A., 925.
- See also Griffith, R. O.
- Winnacker, K. See Berl, E.
- Winning, C., and Thomas, R. M., predicting stability of gasolines to ageing, B., 532.
- See also Standard Oil Development Co.
- Winning, C. H., and Williams, John Warren, sorption of organic vapours by resinous and cellulosic materials, A., 1113. Sorption of organic vapours by glyptal resins, B., 199.
- Winogradsky, S. See under Vinogradski.
- Winship, E. See Knight, G. D.
- Winslow, C. E. A., Walker, H. H., and Sutermeister, M., influence of aeration and of sodium chloride on the growth curve of bacteria in various media, A., 190.
- See also Walker, H. H., and Watkins, J. H.
- Winson, C. G., measuring the resilience of wool, B., 222.
- Winston, A. W., Kenaga, I. A., and Dow Chem. Co., magnesium sulphate, (P.), B., 386.
- Winter, D. See Bergmann, E.
- Winter, E., and N. V. Splendor Gloeilampen-fabriek Splendor Lampworks, incandescent cathodes for thermionic tubes, (P.), B., 434.
- Winter, E. W., [sex] hormone in urine and mammary secretion, A., 643.
- Winter, J., diffusion of electrons by atoms, A., 550. Theory of diffusion of high-voltage electrons, A., 1222.
- Winter, K. A., and Reiss, Max, function of adrenal tissue. V. Role of adrenal tissue hormones in sulphur metabolism, A., 192.
- Reiss, Max, and Valdecasas, J. G., function of the adrenal cortex. VII. Adrenal cortex and glutathione, A., 1085.
- Winter, L. B., metabolism of lactose. II. Blood-sugar during lactation, A., 419.
- Winter, O. B., and Butler, L., determination of fluorine [in plant materials], A., 654.
- See also Willard, H. H.
- Winter, P. K., and Moyer, H. V.,  $p_H$  value of blue print sensitising solutions; effect of addition of certain salts, B., 446.
- Winter, X., coating and moulding compositions containing oriental lac, (P.), B., 356. Treatment [hardening] of oriental lac, (P.), B., 479.
- Winterfeld, K., and Holschneider, F., lupin alkaloids. VII. Synthesis of nor-lupinane, A., 78.
- Wintermute, H. A., Hedberg, C. W. J., and Research Corp., apparatus for electrical precipitation [from gases], (P.), B., 716.
- See also Meston, A. F.
- Winternitz, R. See Stary, Z.
- Wintersberger, K. See Höngschmid, O.
- Winterstein, A., a provitamin-A, A., 540. Occurrence of  $\gamma$ -carotene, A., 1212.
- and Stein, G., saponin series. XII. Parent hydrocarbons of the triterpene group, A., 718.
- See also Kuhn, R.
- Winterstein, H., applicability of Winterstein's microelectrode for the determination of blood- $p_H$ , A., 81. Chemical basis of nerve stimulation, A., 419.
- Wintersteiner, O., action of thiol compounds on insulin, A., 1336.
- and Abramson, H. A., isoelectric point of insulin; electrical properties of adsorbed and crystalline insulin, A., 431.
- Wintgen, R., and Hacker, W., specific conductivity of the intermicellar liquid in gold sols, A., 124.
- Winther, C., photochemical action of complex light, A., 238. Photochemical studies. III., A., 359. Latent [photographic] image, A., 1255.
- Winther, J. E. See Andersen, A. C.
- Winthrop Chemical Co., Inc. See Callsen, B., Desmari, K., Eisleb, O., Günther, F., Knorr, A., Linsert, O., Marx, K., Schmidt, H., Streitwolf, K., and Straus, F.
- Winton, E., and Edgar, R., sulphur and nitrogen of wool, B., 142.
- Winzenburger, W. See Schmidt, Jonas.
- Winzer, K. See Fischer, Franz.
- Wirbel, M., determination of urinary total nitrogen, A., 1320.
- Wirbelstrahlbrenner Ofenbauges. m.b.H. See Schüffler, J.
- Wirén, O. A., arrangement in digesters adapted for manufacturing cellulose and working with circulation effected by a centrifugal pump, (P.), B., 1003.
- Wirtel, J., automatic refrigeration chamber, A., 1026.
- Wirshing, R. J., plating of zinc-base die castings, B., 109.
- Faas, H. R., and Gen. Motors Research Corp., coating for ferrous metals, (P.), B., 592.

- Wirtel, A. F. See De Groot, M.
- Wirth, C., device for removing "frozen" glass stoppers from reagent bottles, A., 690.
- and Stross, M. J., determination of sulphur and chlorine in gasoline, B., 453.
- Wirth, E. See Rojahn, C. A.
- Wirth, H. E., and Robinson, R. J., photometric investigation of Nessler reaction and Witting method for determination of ammonia in sea-water, A., 1132.
- Wirth, V. I. See Pearce, J. N.
- Wirth, W. See Koenig, Wilhelm.
- Wirtz, A., pig iron and iron castings having a fine graphite structure, (P.), B., 67.
- Wisconsin Alumni Research Foundation. See Hart, E. B., Steenbock, H., and Wiig, E. O.
- Wise, C. R. See Nichols, H. J., jun.
- Wise, E. C., and Heyl, F. W., colorimetric and biological assay of vitamin-A, A., 195.
- Wise, E. M., and Eash, J. T., rôle of platinum metals in dental alloys. III. Influence of platinum and palladium and heat treatment on microstructure and constitution of basic alloys, B., 431.
- Wise, L. E., Hamer, P. L., and Peterson, F. C., wood. IV. Water-soluble polysaccharide of eastern larch, B., 262.
- and Unkauf, H. C., wood. V. Arabogalactan in Western American larches, A., 260.
- Wise, M. See Davis, C. F.
- Wisecup, C. B. See Stone, W. E.
- Wishart, G. M. See Stirling, A. D.
- Wislicenus, H., primitive cellulose and lignin in the wood-forming plants as chemical builders of the wood substance, A., 989. Damage [to plant life] by effluent gas and smoke, and its prevention, B., 324.
- [with Uebel, K.], pore viscosimeter and stalagmometer for measurement of molecule aggregation and degradation in solutions and simple liquids, A., 801.
- Wiss, K., determination of the f.p. of milk, B., 40.
- Wisselinck, S. See Hofmeier, H.
- Witanowski, W. R., and Krynska, H. P., pungent principle from the water-pepper, *Polygonum hydropiper*, L., A., 1216.
- Witherspoon, S. C. See Miller, G. E.
- Withrow, J. R. See Hammond, W. A.
- Withrow, L., and Rassweiler, G. M., absorption spectra of gaseous charges in a gasoline engine, B., 994.
- Witmer, E. E., unitary theory, pure number ratios, and the masses of atomic nuclei, A., 1226.
- Witmer, R. B., and Cork, J. M., measurement of X-ray emission wave-lengths by means of the ruled grating, A., 201.
- Witt, D., manures; [fertilisers evolving carbon dioxide], (P.), B., 279.
- Witt, N. F. See Poe, C. F.
- Witt, W. See Miehe, K.
- Witte, E. See Stöckly, J. J.
- Witte, F., simplification of determination of lime requirement in soils, B., 359.
- Witte, H., apparatus for controlling sugar content of boiler feed-water, B., 1039.
- Witteborg, W., and Barmen, W., crystal morphology of faujasite and linnaeite, A., 45.
- Wittekindt, W., determination of addenda in presence of Portland cement, B., 1010.
- Witte-meier, H., and Richter, B., filtering apparatus for air and other gases, (P.), B., 4.
- Wittenberg, L., and Barrett Co., paving aggregate, (P.), B., 708.
- Witter, L. L. See Greiner, A.
- Wittgenstein, A., effect of "antithyroidin-Möbius" on glycogen metabolism, A., 868.
- Wittholz, W., action of sodium thiocyanate on milk. II. Bactericidal action of NaCNS, A., 1068.
- Wittig, G., and Petri, H., ring closure and radical formation. V. 9:10-Tetra-phenyldihydrophenanthrene and 4:5-dimethoxy-9:10-tetra-phenyldihydrophenanthrene, A., 944.
- Wittka, F., mucilage content of castor oil, B., 275. Gross examples of rancidification of soaps, B., 973.
- Wittneben, W. See Flössner, O.
- Wittouck, S., and Teillard-Chambon, M., films from casein, (P.), B., 78.
- Witty, G., and Harte, R. T., [slag] brick, (P.), B., 429.
- and Structural Products Corp., moisture-absorbing composition, (P.), B., 629.
- Witzel, H. W., and Selden Co., purification of crude maleic acid, (P.), B., 998.
- Witzmann, H. See Jander, G.
- Wlostowska, W., Kolthoff-Kruisheer method for determination of sucrose in beer, B., 327.
- Wöhlbier, W., and Naumann, K., soil examination, B., 401.
- and Schulze, comparison of laboratory methods of soil examination with field manual trials, B., 1072.
- See also Honcamp, F.
- Wöhler, L., and Hofer, K., amorphous aluminium carbide, A., 917.
- and Schuff, W., alkaline-earth silicides, A., 37.
- and Wegwitz, O., sulphur sesquioxide, A., 919.
- and Wenzelberg, O., sensitivity of explosives to shock, B., 446.
- Wöhr, F., electrical oxidation of aluminium with polarised alternating currents up to high frequencies, B., 471. Measurement of resistance of technical electrolyte baths, B., 925.
- Wölbling, H., adsorption of platinum metals by active carbon, A., 20.
- and Steiger, B., dithizone (diphenylthiocarbazone) reactions, A., 793.
- Wölfel, K., applicability of Artmann and Skrabal's iodometric method for ammonia to determination of carbamide, A., 56.
- Wördeman, M. W., glycogen changes of the organisation centre in amphibian gastrula, A., 630. Glycogen metabolism of animal "organisators," A., 855.
- Woernle, R. See Glocker, R.
- Wogrinz, A., gold-plating baths, B., 673. Analysis of chromium-plating baths; determination of small quantities of Cr<sup>+++</sup> and Fe<sup>+++</sup> in the presence of much CrO<sub>3</sub>, B., 710. Determination of copper in plating baths by the de Haën-Low method, B., 833.
- Wohl, (Mlle.) See Ramart-Lucas, (Mme.) P.
- Wohl, A., and Wollenburg, O., glucononitrile, A., 383.
- Wohl, K., and Magat, M., specific heat and dissociation of gases at high temperatures, A., 16.
- Wohlenberg, W., and Müller, Konrad, anti-insulin principle occurring in the pancreas. I. Presence in external secretion of the pancreas of non-diabetic and diabetic persons, A., 986.
- Wohlfeil, T., oxybiotic and anoxybiotic gas metabolism of pathogenic bacteria. IV. Semi-micro-method for measuring respiration and fermentation of bacteria and other cells, A., 639.
- Wohlgemuth, J., and Szörényi, E., enzymes of the skin. X. Catalase of human skin, A., 1067. Action of light on chemistry of the cell. I. Experiments with tissue slices. II. Experiments with red blood-corpuscles. III. Influence of histamine, A., 1200.
- Wohlwill, M., measurement of electrical dipole moments by a molecular ray method, A., 210.
- See also Estermann, I.
- Wohnsiedler, H. P. See Barsky, G.
- Woidich, F. S., simultaneous treatment of crude petroleum, etc., and bituminous coals, etc., (P.), B., 852.
- Woisin, H., intensive working of the lead chamber [sulphuric acid] process by the Gaillard system, B., 104.
- Woitinek, H. See Ebert, Fritz.
- Wojahn, H., phenolic ketones derived from diphenylmethane, -ethane, and -propane, and their reduction products, A., 1298.
- Wojciechowska, J. See Jablczynski, K.
- Wojcik, See Feszczenko-Czopiowski, I.
- Wojcik, B., and Adkins, H., hydrogenolysis of alcohols to hydrocarbons, A., 484.
- See also Adkins, H.
- Wojtkiewicz, A. F., rôle of potassium nitrate as an inhibitory factor in gas production in cheese, B., 409.
- Wolf, C., edible animal fats; physical and chemical constitution of fats from the physiological viewpoint, B., 27.
- Wolf, C. S., and Amer. Briquet Co., blending of materials in making of briquettes, (P.), B., 180.
- Wolf, E. See Chinoir Fabr. Chem. Pharmaceut. Produkte A.-G.
- Wolf, F. T., pathology of tobacco black-shank, A., 1094.
- Wolf, G. See Meyersberg, P.
- Wolf, H., distillation of tar oil, (P.), B., 258.
- Wolf, K. L., and Strasser, O., ultra-violet absorption of benzene derivatives. II., A., 763.
- Wolf, L., and Reichel, S. von, adjustable greaseless [gas] valve, A., 367.
- See also Rassow, B.
- Wolf, M., measurements of the absorption coefficient for X-rays in the neighbourhood of the L-edges of the elements Pt and Au, A., 3. Absorption coefficients for X-rays in the neighbourhood of the L-edges for the elements gold, platinum, and silver, A., 549.
- See also Scholder, R.
- Wolf, P., non-corrosive priming, B., 252.
- Wolf, P. M., and Riehl, N., destruction of zinc sulphide phosphors by  $\alpha$ -rays. II., A., 999.
- Wolf, W. F., apparatus for extraction of resinous substances from wood, (P.), B., 721.
- Wolf Co. See Keefer, W. L.
- Wolfe, H., assimilation of atmospheric nitrogen by the root fungus of *Corallorhiza innata*, R. Br., and of the epiphytes *Cattleya Bourdingiana*, Veit, and *Laelia anceps*, Ldl., A., 758.
- Wolfe, H. C., X-ray satellites, A., 332.

- Wolfe, R. See Wilkins, T. R.  
 Wolfe, R. A. See Duffendack, O. S.  
 Wolfe, W. D. See Goodyear Tire & Rubber Co.  
 Wolfenden, J. H. See Cox, W. M.  
 Wolff, A., new uses for indigosols [in printing], B., 587.  
 Wolff, G., examination of fatty acids isolated from soaps, B., 973.  
 Wolff, H., toxicity of benzene, B., 99. Characterisation of stand oils, etc., by viscosity, B., 114. Influence of particle size of pigments on oil absorption, B., 514. Testing of stand oil, B., 974.  
 [with Wallbaum, L.], changes in linseed oil on heating, I., B., 637.  
 and Rabinovitch, J., wood staining, B., 355. Changes in linseed oil on heating, II., B., 637.  
 and Rosen, B., [settling of] chalk and calcium carbonate, B., 384. Matto varnishes, B., 399. Nitrocellulose lacquers, B., 676.  
 and Zeidler, G., turpentine as thinner, B., 927.  
 Zeidler, G., and Rosen, B., "extenders," B., 798.  
 See also I. G. Farbenind.  
 Wolff, L. K., and Ras, G., mitogenetic radiation. III., A., 532.  
 See also Eekelen, M. van.  
 Wolff, P. See Kussner, W.  
 Wolff, R., electrochemical phenomena in the catalytic decomposition of hydrogen peroxide by platinum, A., 572. Micro-determination of calcium in tissues rich in iron, A., 1067.  
 and Lafranchise, (Mlle.), action of pancreatic extract on glycine in glycerol medium, A., 315.  
 and Manjean, (Mlle.) S., effect of magnesium salts on content of reduced glutathione in the organs of the dog, A., 423.  
 and Train, M., micro-determination of magnesium in animal tissues, A., 1067.  
 Wolff, W., principles of soil mapping, A., 1032.  
 Wolff, W. A., Riegel, C., and Fry, E. G., excretion of morphine by normal and tolerant dogs, A., 633.  
 Wolff & Co., and Weingand, R., diminishing the permeability to water vapour of non-metallic foils or sheets, (P.), B., 544.  
 Wolfke, M., and Mazur, J., dependence on temperature of polarisation and association of ethyl ether, A., 211. Two different states of liquid carbon disulphide, A., 1001. Two different states of liquid nitrobenzene, A., 1104.  
 and Ziemecki, S., optical properties of liquid nitrobenzene near its transition point, A., 1104.  
 Wolfson, M. L. See Deulofeu, V., and Hudson, H.  
 Wolfsohn, G., dispersion of gases and vapours and its representation by the dispersion theory. IV. Dispersion of mercury between 2800 and 1890 Å and the life period of the Hg  $7p_{1p_1}$  state. V. Interferometer for dispersion measurements in the Schumann region, A., 765, 1104.  
 See also Ladenburg, R.  
 Wolk, L. J. van der. See Schreinemakers, F. A. H.  
 Wollan, E. O., measurements of intensity of Compton modified radiation by means of filters, A., 760.  
 Wollenburg, O. See Wohl, A.  
 Wollman, E., and Wollman, (Mme.) E., oligodynamic action of silver on bacteria and bacteriophage, A., 430.  
 See also Basset, J.  
 Wollman, (Mme.) E. See Wollman, E.  
 Wollschitt, H. See Sehenck, E. G.  
 Wollman, A., controlling corrosion of [water]-distribution systems, B., 846.  
 Wolter, A. See Hilpert, S.  
 Wolter, E. See Auwers, K. von.  
 Wompe, A. F. See Preobraschenski, N. A.  
 Wong, A. See Chang, H. C.  
 Wong, C. Y. See Fink, C. G.  
 Woo, S. C. See Strong, J.  
 Wood, B. B., treatment of fibrous plants for recovery of the fibres thereof, (P.), B., 960.  
 Wood, C. B., germicide, (P.), B., 894. Water disinfectant, (P.), B., 942. Bleaching compound, (P.), B., 1007.  
 Wood, C. E. See Jones, David G., and Radji, A. H. K.  
 Wood, D., jun., and Bergstrom, F. W., attempts to prepare nitrogenous derivatives of bivalent carbon, A., 1060. Tetrazine, A., 1172.  
 Wood, D. R., Illing, E. T., and Fletcher, A. E., diphenylbenzidine test for nitrates in milk as a means of detecting added water, and the effect of drenching cows with nitro, B., 408.  
 Wood, F. C., cellulose methylene ether, A., 381.  
 Wood, F. S., safety paper, (P.), B., 1006.  
 Wood, H. C., jun. See Gershenfeld, L.  
 Wood, H. G. See Osborn, O. L.  
 Wood, J. W., Dent, F. J., Blackburn, W. H., Williams, N. H., Parrish, E., Kelly, A. R., and Davey, W. J. G., the Sigma B.Th.U. Recorder; 30th Report of Joint Res. Comm. Inst. Gas Eng. and Univ. Leeds, B., 134.  
 Wood, R. O., and Nat. Aniline & Chem. Co., preparing dye paste for printing and dyeing, (P.), B., 1000.  
 Wood, R. T., and Amer. Magnesium Corp., magnesium-base alloy, (P.), B., 112.  
 and Magnesium Development Corp., casting of easily oxidisable metals, (P.), B., 433.  
 See also Amer. Magnesium Corp.  
 Wood, R. W., optical properties of the alkali metals, A., 547, 1096.  
 and Collins, G., Raman spectra of a series of normal alcohols and other compounds, A., 7.  
 Wood, W. A., effect of lattice distortion and fine grain on the X-ray spectra of metals, A., 341. Selective lattice distortion in wires under torsion, A., 667. Lattice distortion and fibre structure in metals, A., 1105. Lattice distortion in nitrated steels and theory of hardness, B., 1059.  
 Wood, W. C. See Rabinovitch, Eugen.  
 Wood, W. E., Bachelder, W. H., and Standard Oil Co., filter construction, (P.), B., 529.  
 Wood, W. H., [porous] electrolytic diaphragm, (P.), B., 835.  
 Wood, W. R. See Internat. Combustion, Ltd.  
 Woodall-Duckham (1920), Ltd., and Brooke, S. A., [apparatus for shutting off combustion air from] furnaces, refuse destructors, etc., [during charging], (P.), B., 4.  
 and Reber, J. W., step-grate producers, (P.), B., 820.  
 Woodall-Duckham (1920), Ltd., and Symington, S., refuse destructors, (P.), B., 126.  
 and Tarrant, A. N., tunnel kilns, (P.), B., 128.  
 Woodall Industries, Inc. See Zinser, P. R.  
 Woodard, H. Q., effect of X-radiation on viscosity of gelatin, A., 24.  
 Quimby, E. H., and Downes, H. R., relative effects produced by 200-kv. Röntgen rays, 700-kv. Röntgen rays, and γ-rays. II. Effects on iodides, Eder's solution, and photographic film, A., 1127.  
 Woodbridge, R. G. See Du Pont de Nemours & Co., E. I.  
 Woodburn, H. M. See Evers, W. R., and Whitmore, F. C.  
 Woodbury, C. A. See Du Pont de Nemours & Co., E. I.  
 Woodford, W. H., and Remington Arms Co., ammunition, (P.), B., 941.  
 See also Burns, J. E.  
 Woodhall, W. H., and Harrison Steel Castings Co., steel alloy, (P.), B., 793.  
 Woodhead, D. W. See Campbell, C., and Payman, W.  
 Woodhead, M., and Whytlaw-Gray, R., comparison of the densities of carbon monoxide and oxygen and the at. wt. of carbon, A., 894.  
 Woodhouse, E. D., sap hydraulics, A., 875.  
 Woodhouse, J. C. See Du Pont de Nemours & Co., E. I.  
 Woodland, D. J., and Mack, E., jun., effect of curvature of surface on surface energy; rate of evaporation of liquid droplets; thickness of saturated vapour films, A., 1010.  
 Woodman, H. E., cystine and wool production, A., 182.  
 and Evans, R. E., determination of total sulphur and sulphate sulphur in feeding stuffs, B., 764.  
 Evans, R. E., and Norman, D. B., nutritive value of lucerne. I. Yield, composition, and nutrient value (season 1932), B., 804.  
 Woodman, J. C., and Decarie Incinerator Corp., [sewage] screenings burner, (P.), B., 654.  
 Woodman, R. M., emulsion systems containing phenols, water, and gelatin, A., 348. Wetting, spreading, and emulsifying agents for use with spray fluids. III. Emulsifiers, and soaps containing spraying oils. IV. Miscible oils. V. Partial phase-rule investigation of the miscible oil system phenol-water-sodium oleate-toluene, B., 85, 165, 646.  
 and Rhodes, E., quebrachitol and the lipin from *Hevea* latex, B., 200.  
 Woodroffe, D., effect of chromates and dichromates on vegetable-tanned leather, B., 931.  
 Bailey, O., and Rundle, A. S. R., heat conductivity of leather—its determination and importance, B., 358.  
 Woodrow, J. W., and Philipson, J. B., ultra-violet absorption spectra of carotene and vitamin-A, A., 871.  
 Woodruff, F. O., and Beckwith, H. H., shoe-stiffener material, (P.), B., 758. [Fire-resistant] shoe-stiffener material, (P.), B., 838.  
 Woodruff, J. C., and Commercial Solvents Corp., carbon monoxide process, (P.), B., 377.

- Woodruff, J. C., Wilson, P. W., and Commercial Solvents Corp., [producing EtOH and] propionic acid [by] fermentation, (P.), B., 682.
- Woodruff, S., and Webber, L. R., photomicrographic study of gelatinised wheat starch, B., 935.
- Woods, E., Shaw, A. O., Atkeson, F. W., and Johnson, R. F., vitamin-A content of pasture plants. I. White clover and Kentucky bluegrass under pasturage conditions, A., 323.
- Woods, G. G., and Eddy, N. B., [pharmacology of] new alkalines in the tetrahydronaphthalene series, A., 858.
- Woods, H. R., Steinour, H. H., and Starke, H., effect of composition of Portland cement on heat evolved during hardening, B., 20. Effect of cement composition on mortar strength, B., 21. Heat evolved by cement in relation to strength, B., 468.
- Woods, H. J., energy of ground state of methane, A., 112.
- Woodson, J. C. See Westinghouse Electric & Manufg. Co.
- Woodstock, W. H., McDonald, G. A., and Victor Chem. Works, conversion of ferrophosphorus [into phosphorus thiocloride], (P.), B., 61.
- Woodward, C. F., and Fuson, R. C., cleavage of carbonyl compounds by alkalis. XI. Action of hypobromite solutions on  $\beta$ -diketones, A., 1053.
- Woodward, G. E. See Schroeder, E. F.
- Woodward, H. S., and Phelps Dodge Corp., electrode cleaning process, (P.), B., 926.
- Woodward, H. T., and Burnham Chem. Co., recovering glaserite from Searles Lake brines, (P.), B., 748. Recovering alkali salts from Searles Lake brines, (P.), B., 748.
- and California Chem. Corp., making a filtering, bleaching, and insulating material, (P.), B., 576.
- Woodward, V. L., chewing gum, (P.), B., 731.
- Woodworth, S. E., and Hamilton, Beauchamp, & Woodworth, rotary vacuum filter, (P.), B., 448.
- Woog, P., spreading of oil on water, A., 122.
- and Givaudon, J., apparatus for accurate measurement of viscosity, A., 481.
- Givaudon, J., and Dayan, F., cryostat for low and very low temperatures, A., 689.
- and Sigwalt, R., Duboscq colorimeter for analysis and definition of colours in different regions of the spectrum, A., 247.
- Woodriddle, W. R., "stability test" of sewage and its relation to enzyme activity, B., 446.
- and Standfast, A. F. B., biochemical oxygen demand of sewage, B., 494.
- Wooley, A. D. See Bartell, F. E.
- Woolrich, W. R., and Carpenter, E. L., processing of cottonseed meats, B., 637.
- Woollett, G. H., Vaughan, F. W., Burks, M. L., and Hinton, C. O., decomposition of iodophenols, A., 946.
- Woolley, B. L. See Gilman, H., and Kinney, C. R.
- Woost, F. T. van, determination of nitrate in meat, etc., B., 282.
- Wooster, N., structure of trifluorides of transition metals, A., 214.
- See also Wooster, W. A.
- Wooster, W. A., crystal structure and dehydration figures of alkali halide hydrates, A., 12.
- and Wooster, N., graphical method of interpreting Weissenberg photographs, A., 213.
- See also Phillips, F. C.
- Wooten, L. A. See Clarke, B. L.
- Worden, B. C., and Hanson & Orth, cellulose material [ $\alpha$ -cellulose] from hemp fibres, (P.), B., 585. Purified [ $\alpha$ -]cellulose material from hemp [*Musa*] fibres, (P.), B., 1004.
- Woringer, P., antibody to ovalbumin in the blood of allergic subjects, A., 414.
- Work, H. K., practical problems involved in commercial electroplating on aluminium, B., 710.
- Work, L. T., combining drying and grinding operations, B., 655.
- and Odell, I. H., mechanism of development of pigment value in zinc sulphide. I. Theory of development of pigment value and methods of test. II. Development of pigment value in calcination, B., 436, 595.
- Work, S. H. See Turk, K. L.
- Working, E. B. See Swanson, C. O.
- Workman, E. J., temperature variation of the specific heat ( $C_p$ ) of carbon dioxide at 65.3 kg./cm.<sup>2</sup> pressure; specific heat of helium as a function of pressure, A., 343. Secondary effects in ionisation by hard  $\gamma$ -rays, A., 762.
- World Bestos Corporation. See Nanfeldt, W.
- Worley, F. P., forest fires in relation to soil fertility, B., 643.
- and Robins, E. D., action of potassium cyanide solutions on colloidal gold, A., 777.
- See also Pitcaithly, N. P.
- Wormall, A., carbohydrate metabolism in human trypanosomiasis, A., 181.
- See also Hopkins, S. J.
- Wormwell, F. See Bengough, G. D.
- Wornum, W. E., colloidal behaviour in paint and varnish systems. I., B., 719.
- Worrall, D. E., hydroxy- and amino-esters of yohimbic acid, A., 1175.
- Worthington, F. V. See Carson, F. T.
- Worthington, R. See Searle, H. E.
- Worthley, H. N., codling moth bands in Pennsylvania, B., 245.
- Wortmann, J., Hall effect and resistance of hydrogen-charged palladium-silver and palladium-gold alloys, A., 1239.
- Worwood, H. E., kilns and similar apparatus for heat-treatment of materials, (P.), B., 767.
- Worzella, W. W. See Cutler, G. H.
- Wouda, J., apparatus for rapid measurement of photomicrographs, A., 139.
- Woudhuysen, J., synthetic lubricating oils, B., 137.
- Wouters, J. See De Hemptinne, M.
- Woxvold, E., and Amer. Maize Products Co., composition for baking purposes, (P.), B., 764.
- Wragg, D., bisulphite process [of pulp manufacture] in Britain, B., 342.
- Wraith, H. O. See Walker, C. B.
- Wrange, G. V., and Aktieb. Friberg's Hogvacuum pump, tanning of hides, (P.), B., 758.
- Wrangell, M. von, and Bentelspacher, H., determination of small quantities of potassium in soil solutions, B., 162.
- Wratschko, F., volume chemistry of liquid carbon compounds, A., 115.
- Wray, R. I., and Van Vorst, A. R., permeability of paint films to moisture, B., 799.
- See also Edwards, J. D.
- Wrede, F., silver salt of thiocellobiose, (P.), B., 284.
- Bruch, E., and Feuerriegel, G., constitution of bases obtained from protein. IV., A., 401.
- and Feuerriegel, G., preparation of oxazoles from  $\alpha$ -amino-acids, A., 960. Reaction of tryptophan and acetyl chloride, A., 1060.
- and Rothhaas, A., prodigiosin, red pigment of *Bacillus prodigiosus*. III. and IV., A., 516, 1172.
- Wrigge, F. W. See Geilmann, W.
- Wright, A., sewage-disposal apparatus, (P.), B., 686.
- and Young, F. W., filter-cake treating devices, (P.), B., 657.
- Wright, C. C. See Beusehleim, W. L.
- Wright, C. H. See Kirkpatrick, W. S.
- Wright, D. D., varnishes and lacquers for rubber footwear, B., 315.
- Wright, E. C., and Mumma, P. F., properties of low-carbon medium-chromium steels of the air-hardening type, B., 349.
- Wright, G. F. See Gilman, H.
- Wright, G. T. See Schuricht, A. G.
- Wright, H. E. See Dorman, Long & Co.
- Wright, H. H., and Du Pont Cellophane Co., cellulose articles, (P.), B., 586.
- Wright, J. F., accessory minerals in study of granite batholiths, A., 251.
- Wright, J. G., Graham, G. A., and Light, A. K., fumigant, (P.), B., 814.
- Wright, J. G. E. See Brit. Thomson-Houston Co.
- Wright, J. W. See Falconer, J. G.
- Wright, L., and Taylor, F., electrodeposition of tin from alkaline solutions, B., 591.
- Wright, L. K., refrigerant, (P.), B., 255.
- Wright, N., and Randall, H. M., far infrared absorption spectra of ammonia and phosphine gases under high resolving power, A., 1102.
- See also Dennison, D. M.
- Wright, N. C., factors affecting solubility of milk powders. I. Effect of heat on solubility of milk proteins, B., 363.
- Wright, R., densities of saturated vapours, A., 17.
- See also MacFarlane, W., and Steward, F. C.
- Wright, R. C., physiological studies of potatoes in storage, B., 169.
- Wright, S. L., and Allison, C. L., determination of total base [in biological material], A., 654.
- See also Stadie, W. C.
- Wright, W., radial growth of the xylem and starch reserves of *Pinus sylvestris*: preliminary survey, A., 1092.
- See also Loveless, A. H.
- Wright, W. A., examination of binary liquid mixtures, A., 345.
- Wright, W. H. See Schrader, L. F.
- Wrighton, W. J., and Amer. Optical Co., covering a metallic [white-gold] article with an unworkable alloy, (P.), B., 511.
- Wrightsmen, P. G. See Du Pont de Nemours & Co., E. I.
- Wrought Iron Co. of America. See Hart, C.
- Wruble, M., percolation; Réal's "Filtre-pressé" and its modifications, B., 687.

- Wu, H., effect of removal of lipins on the precipitability of serum-proteins by neutral salts, A., 1065.  
See also Hsu, C. H., Wang, Y., and Yang, E. F.
- Wu, L. C. [with Davis, T. L.], ancient Chinese treatise on alchemy, entitled Ts'an Tung Ch'i, written by Wei Po-yang about 142 A.D., A., 250.
- Wührer, J., resorption of aluminium in the animal organism; aluminium content of animal tissues, A., 1199.
- Wüllfinghoff, F. A. M., and Jungnitz, G., machinery in chemical works, B., 128.
- Willen-Scholten, W. van, viscosity determination, B., 128. Façade pigments and paints, B., 355. Action of poster adhesive on oil films, B., 436. [German] technical terms [in the paint industry], B., 1068.
- Würstlin, F. See Kast, W.
- Wuert, A. J. See Du Pont de Nemours & Co., B. I.
- Wüstenfeld, H., and Luckow, C., physical and chemical changes occurring during storage of wine distillates on the large scale, B., 328.
- Wulf, O. R., theory of the ozone of the lower atmosphere and its relation to the general problem of atmospheric ozone, A., 1267.  
and Jones, E. J., distribution of intensity within the  $\beta$  and  $\gamma$  bands of nitric oxide, A., 207.  
and Melvin, E. H., dissociation of nitrous oxide by light, and electronic levels of ozone, nitrous oxide, and nitrogen dioxide, A., 1233.  
See also Liddel, U., and Melvin, E. H.
- Wulff, J. See Bacher, R. F.
- Wulff, P., refraction and dispersion of crystals. VI. Width of absorption band and dispersion of potassium chloride. VII. Representation of course of dispersion in visible and ultra-violet, A., 765. Seven years' technical  $p_H$  measurement with the indicator leaf, B., 1064.
- Wulff, R. G., high temperatures, (P.), B., 687. Production of acetylene by compression, (P.), B., 693. Halogenation process of making acetylene and other products, (P.), B., 693.
- Wulfssohn, A. See Dziewoński, K.
- Wulkotte, G. See Remy, T.
- Wunder, W., significance of superphosphate manuring for fish ponds, B., 38.
- Wunderling, H. See Auwers, K. von.
- Wunderly, K., aminolysis of aspartic acid, A., 264. Suppression of aminolysis at a carbon contact, A., 681. Behaviour of hexoses in presence of animal charcoal and iron phosphate complexes, A., 1145. Behaviour of carbamide derivatives, amino-acids, and peptides towards animal charcoal, A., 1148.  
See also Baur, F.
- Wunschendorff, H., and Valier, (Mme.) P., interaction of saturated solutions of potassium chromate and manganous chloride, A., 1130.
- Wurbs, F. R. See Gessner, O.
- Wurm, K., diffuse bands accompanying the D-lines of sodium, A., 199.
- Wurmser, L., glutathione content and reductive power towards cystine of desiccated organs, A., 624.
- Wurmser, R., and De Loureiro, J. A., oxidation-reduction potential of ascorbic acid, A., 1122.
- Wurmser, R., and Mayer-Reich, (Mme.) N., equilibrium between lactic and pyruvic acids, A., 350.  
See also Terroine, E. F.
- Wurstemberger, F. von, production of nickel layers on iron or steel, (P.), B., 793.
- Wurster, K., preservation of milk for investigation. II., B., 443.
- Wurster, O. H., distillation of liquids, (P.), B., 769. Distillation of glycerin, (P.), B., 798.
- Wurtz, E., bath vat for spinning or subsequent liquid treatment of artificial silk, etc., (P.), B., 58. Method of feeding the coagulating liquid while spinning artificial silk, (P.), B., 543.
- Wurtz, W., increasing the elasticity and strength of artificial [viscose] silk, etc., (P.), B., 143.
- Wurz, O., preparation of bleach liquors from liquid chlorine and [quick]lime, B., 304.
- Wurzschmitt, B. See Krech, R.
- Wuyts, H., reactions of reducing sugars, A., 810.  
and Kuang, L. C., synthesis of acyclic thiohydrazones from methylhydrazine and aromatic dithiocarboxylic acids, A., 821.  
and Lacourt, (Mlle.) A., arylhydrazines and dithiocarboxylic acids, A., 498. Synthesis of new heterocyclic compounds; 3-aryldihydrothiadiazoles, A., 839.
- Wyant, Z. N. See Snyder, R. M.
- Wyatt, E. M., and Amer. Face Brick Research Corp., kiln for manufacture of bloated clay products, (P.), B., 706.
- Weiss, H. F., and Amer. Face Brick Research Corp., furnace mechanism and process for bloating clay, (P.), B., 62.  
See also Hathaway, W.
- Wyatt, G. H. See Drew, H. D. K.
- Wyeckoff, R. D., Botset, H. G., Muskat, M., and Reed, D. W., measurement of the permeability of porous media for homogeneous fluids, A., 926.
- Wyckoff, R. W. G. See Corey, R. B.
- Wydler, E., preparation of metallic sulphides along with metals or massive silicon, (P.), B., 589.
- Wykowski, W. See Smisniewicz, T.
- Wyler, J. A. See Snelling, W. O.
- Wyler, M. See Imperial Chem. Industries.
- Wylie, (Miss) D. E. See Harris, J. A.
- Wyman, J., jun., dielectric constants: ethyl alcohol-diethyl ether and carbamide-water solutions between 0° and 50°, A., 1240.  
and McMeekin, T. L., dipole moments of esters of amino-acids and peptides, A., 459. Dielectric constant of solutions of amino-acids and peptides, A., 459.
- Wyman, L. L., copper embrittlement. II., B., 193.
- Wynd, C. L. A., Groth, W. H., and Eastman Kodak Co., [cellulose ester] film, (P.), B., 699.  
See also Wells, J. B.
- Wynn, E. E. See Phosphor Bronze Co.
- Wynn-Williams, C. E. See Rutherford, (Lord).
- Wynne, A. M. See Heard, R. D. H., and Pett, L. B.
- Wynne-Jones, W. F. K., dissociation constants of acids, A., 464. Acid strength and its dependence on the nature of the solvent, A., 675.
- Wyoming Platinum & Gold Mining Syndicate. See Hull, A. J.
- Wyss, O. A. M. See Wehrli-Hegnner, J.
- Wyss-Chodat, F. See Chodat, F.
- Wyszewianski, L. See Ruzicka, L.

X.

Ximenez, M. R. See Walsh, J. F.

Y.

- Yabroff, D. L., and Branch, G. E. K., additive compounds of phenylboric acid with bases, A., 618.  
Branch, G. E. K., and Almquist, H. J., interaction of the boron sextet with adjacent groups, A., 962.
- Yabuta, T., and Kambe, K., glyoxaline derivatives. III. Occurrence of 4-hydroxymethylglyoxaline, A., 722.  
and Kozu, T., toxic substance in mulberry leaves damaged by tobacco; toxic action of nicotine and trimethylamine on silkworms, A., 990.
- Yacco, S. A. F., lubricating compositions (P.), B., 853.
- Yager, C. B. See Coleman, G. H.
- Yager, W. A. See Morgan, S. O.
- Yagi, F., action of sinomenine and parasinomenine on the uterus; comparison with quinine. III. Uterus *in situ*, A., 311. Relation between action of adrenaline on the uterus and  $p_H$  of the blood, A., 1085.
- Yagi, H. See Hayashi, Y.
- Yagi, S. See Oka, Sojiro.
- Yaglou, C. P., Benjamin, L. C., and Brandt, A., influence of respiration and transpiration on ionic content of air of occupied rooms, B., 253.
- Yagoda, H., ionisation potential of radon, A., 1222.
- Yaitschnikov, I. S., interaction of caseinogen and nicotine, A., 620. Binding of iodine by caseinogen, A., 774.
- Yajnik, N. A. See Speers, P. C.
- Yakobi, F. See Karaseva, A.
- Yakovlev, D. I., coals from Chchemkhovo, B., 450.
- Yakovtzevskaia, A. K. See Petrova, M. A.
- Yakubovich. See under Jakubovitsch.
- Yakushiji, E. See Shibata, K.
- Yamada, H. See Kitagawa, M.
- Yamada, K., chlorine, total and residual nitrogen of the blood of the chick embryo, A., 734. Distribution of chlorine in the developing hen's egg, A., 735. Fructose in the amniotic fluid of chick embryos, A., 737. Sugar of amniotic fluid; observations in chick embryos, A., 737. Colour reaction and micro-determination of D-fructose, A., 737.  
See also Riesser, O.
- Yamada, M., decomposition of amino-acids by yeast. I.—III., A., 750.
- Yamada, Sakae, determination of acetone [in presence of acetaldehyde]; catalysts in the synthesis of acetone from acetaldehyde, A., 937.
- Yamada, Susumu, effect of insulin, adrenaline, and phloridzin on blood-phosphate and lactic acid in rabbits, A., 538.



- Yamada, T., oxidation mechanism of mineral oils. IV. Effect of some alcohols, esters, etc. V. Peroxide formation in the oxidation of refined mineral oil, B., 211, 612. Antioxidants [for oils], B., 796.
- Yamafuji, K., digestive enzymes of *Bombyx mori*, A., 524, 968. Protease and amylase in blood of the silkworm (*Bombyx mori*, L.), A., 845.
- Yamaguchi, E., determination of unsaturated acids in commercial linseed oil by bromometric and thioeyanometric methods, B., 796.
- Yamaha, G., coagulation of bacterial suspensions, A., 1334.  
See also Ruhland, W.
- Yamamoto, E., velocity of decomposition of diazo-compounds in aqueous solution. IX. and X., A., 233, 470.
- Goshima, R., and Hashima, T., velocity of decomposition of diazo-compounds in aqueous solution. XI., A., 1250.
- Yamamoto, K. See Kaneko, H.
- Yamamoto, Kenichi, physico-chemical properties of Japanese acid clay. VI. X-Ray studies. II. VII. Solubility in alkaline solutions and the essential constituents of acid clay. I. and II., A., 46, 483, 1030.
- and Ishikawa, H., sp. gr. of Japanese acid clay, A., 46.
- and Iwasaki, H., sp. gr. of fuller's earth, B., 305.  
See also Kobayashi, Kiuei.
- Yamamoto, R., Oshima, Yasuyoshi, and Goma, T., organic acids in the fruits of Ceylon olives (*Elaeocarpus serratus*, Lin.), A., 104.
- and Tin, S., carotenoids of the fruits of *Citrus poonensis*, Hort., A., 1343.
- Yamamoto, Samuro, artificial silk, (P.), B., 187. Regenerated silk yarn, (P.), B., 302, 861.
- Yamamoto, Sukenori, fractionation of nitrocellulose; solution of nitrocellulose in acetone-water, B., 300.
- Yamamoto, Y., corrosion of grey cast iron by nitric acid, B., 64.
- Yamanaka, K., "unfree water" in soils, B., 241.
- Yamane, T., ortho- and pyro-phosphatase of bone and cartilage. III. Effect of arsenic and fluorine salts on bone-phosphatase, A., 635.
- Yamasaki, F. See Iseki, T.
- Yamasaki, K., intermediate products in the Hammarsten reaction of cholic acid, A., 1162.
- Yamasaki, R. See Ueno, Sei-ichi.
- Yamashita, M., grayanotoxin, the poisonous constituent of leaves of *Leucothoe grayana*, Max. I., A., 397. Condensation of piperidinoacetonitrile with resorcinol and phloroglucinol, A., 400. Steric hindrance in the Hoesch reaction. II., A., 822. Synthesis of derivatives of 4'-amino-2:4:6-trimethoxybenzophenone; improved synthesis of 4'-amino-2:4:6-trimethoxybenzophenone, A., 828. Action of zinc chloride on 4'-amino-2:4:6-trimethoxybenzophenone, A., 828. Synthesis of dihydroisooesthol; constitution of oesthol, A., 1302.
- Yamasbata, U. See Miyashita, K.
- Yamauchi, T. See Kondo, S.
- Yamaura, H. See Tomoda, Y.
- Yamauti, K. See Nisikado, Y.
- Yamaya, J. See Sakaguchi, K.
- Yamazaki, J. See Soda, T.
- Yamazaki, N., and Noguchi, K., production of fructose from steamed glutinous rice by moulds, A., 96.
- Yanagawa, S., detoxicating hormone of the liver [yakriton]. XXXIII. Chloroform and detoxicating liver power, A., 195.
- Yanagihara, A. See Takamine, T.
- Yanagihara, T. See Sakamura, T.
- Yanagita, M. See Asahina, Y.
- Yancey, H. F., and Johnson, K. A., physical and chemical properties of coal in relation to classification, B., 993.
- Yang, E. F., and Wu, H., effect of acidosis and alkalosis on the total base, chloride, and carbon dioxide contents of muscle, A., 1188.  
See also Adolph, W. H.
- Yang, P. S. See Levene, P. A., and Rising, M. M.
- Yannaquis, N., polymorphism of paraffins, A., 451.
- Yanovsky, E., and Kingsbury, R. M., solubility of inulin, A., 1147.
- Yant, W. P., toxicity of organic fluorides, A., 1199.
- Yap, C. P., free energy of transition of iron ( $\alpha \rightleftharpoons \gamma$ ), A., 15. Surface energy of iron carbide, A., 119. Influence of surface energy in disperse systems, A., 775. Equilibrium A3 and A cm points pure carbon steels, A., 1007.
- Yarkov, V. P., Mednorudyansk and Mount Vuisokaya (Ural) copper mines, A., 1030.
- Yaroshevskaja, E. K. See Safronova, V. M.
- Yarsley, V. E., health hazards in the lacquer and finishing industries, B., 686.
- Yasuda, R., lipase content of the urine and blood-serum in kidney tuberculosis, A., 973.
- Yasuda, Y., effect of exercise on blood-creatinine of the horse, A., 308.
- Yatabe, T., morphology of sclerotic cartilage. V. Influence of aqueous nutrients on development of sclerotic cartilage in *Hynobius leechii*, A., 182.
- Yater, W. M., Markowitz, J., and Cahoon, R. F., consumption of blood-sugar by muscle in the non-diabetic and in the diabetic state, A., 739.
- Yates, E. D. See Watson, H. B.
- Yates, E. L. See Owen, E. A.
- Yates, S. W., and Richardson Co., heat treatment of iron sulphide [anode] material, (P.), B., 715.
- Yates, W. J., bactericides (disinfectants) from petroleum, B., 654.
- Yatlov, V. S., and Ruiss, I. G., absorption of silicon fluoride by sodium fluoride, A., 233.
- Yato, M., typhoid toxin purified by adsorption with aluminium hydroxide. I., A., 640.
- Yazaki, A. See Suzuki, Kozo.
- Yazawa, T., muscle extractives, A., 736. Nitrogenous substances of the liver, A., 736.
- Yeasties Products, Inc., Spohn, R. C., and Luke, C. E., preparation of cereal foods, (P.), B., 364.
- Yeaton, S. C., distillation of hydrocarbon oils, (P.), B., 953.
- Yeh, W., radioactivity of rare-earth elements, A., 882.
- Yelburgi, B. H., condensation of bromal hydrate with aliphatic amides, A., 1149.
- Yen, J. Y. See Sah, P. P. T.
- Yenko, F. M., Baens, L., and West, A. P., composition of Philippine hardwoods. IV., B., 222.
- Yeu-Ki-Heng, action of aluminium salts on alkali tartrates, A., 240.
- Yewdall, A., cloth milling with acids, B., 858.
- Yoe, J. H., 7-iodo-8-hydroxyquinoline-5-sulphonic acid as a reagent for colorimetric determination of ferric iron, A., 43.  
See also Cool, R. D.
- Yohe, R. V. See Hunter, W. H.
- Yohs, P., and Butterick Publishing Co., transfer printing [of fabrics] and pattern therefor, (P.), B., 188. Printing compound, (P.), B., 514.
- Yokoi, T., form of magnesium in Tokyo loam, A., 253.
- Yokota, S. See Oya, T.
- Yokoyama, M., anodic oxidation of cyclohexane and its derivatives, A., 599.
- Yokoyama, S. See Ueno, J.
- Yokoyama, Y., and Suzuki, B., phosphatides of human brain. II. Isolation of lecithins of the  $\alpha$ -series. III. Isolation of lecithins of the  $\beta$ -series, A., 176. Lecithins, A., 374.
- Yonkman, F. F., silk cellophane for lantern slides, B., 446.
- Yoselevich, M. See Bochar, A. M.
- Yosemite Portland Cement Corporation. See Larmour, H. M.
- Yoshida, H. See Kondo, S.
- Yoshida, M. See Maki, Toshio.
- Yoshida, R., metallic colloids. I. Influence on production of antibodies; effect on production of agglutinins. II. Precipitins. III. Hemolysins, A., 176.  
See also Aso, K.
- Yoshida, S., dependence of K lines of elements from Cu to Ti on chemical combination, A., 656.
- Yoshida, T. See Ishikawa, F.
- Yoshida, Y. See Tsudji, M.
- Yoshie, S. See Osugi, S.
- Yoshikawa, K., chemical uses of ethylene, B., 378.
- Yoshiki, B., diaspore from Shôkôzan, A., 558. Thermo-optic studies of lepidomelan from Ishikawa, A., 1030.  
See also Kôzu, S.
- Yoshimaru, Y. See Izumi, S.
- Yoshimatsu, S., and Uga, Y., modification of Yoshimatsu's potassium method with 0.1 c.c. of blood, A., 174.  
See also Sato, A.
- Yoshimura, J., absorption spectra of naturally coloured fluorites, A., 446.
- Yoshimura, K., Efuji, T., and Iwata, T., nitrogenous constituents of a variety of *Rhaphanus sativus*, "Sakurajima-daikon," A., 652.
- and Iwata, T., nitrogenous composition of horse beans and peas, A., 1217.
- Murata, H., and Takase, Y., different fertiliser values of rapeseed oilcakes produced in Japan and China, B., 439.
- and Nishida, K., putrefaction products of beer yeast. I., A., 535.
- Yoshimura, R., catalysts for the production of hydrogen by the water-gas reaction. VII.—XIV., A., 234, 789; B., 426.
- Yoshimura, S., chloride as indicator in detecting the inflowing into an inland-water lake of underground water possessing special physico-chemical properties, A., 691.
- Yoshio, K., influence of nutrition on adrenaline action, A., 538.
- Yoshioka, Torakichi. See Fischer, Hans.
- Yoshioka, Tosaku, thermal expansion of highly fired clay ware, B., 786. Dimensional changes of clay wares during firing, B., 786.
- and Iijima, H., improvement of the strength of cements. II. and III., B., 62, 269.

- Yoshiura, H., biology of pregnancy; K:Ca ratio in muscle and liver during pregnancy and its relation to growth processes, A., 303.
- Yosida, S. See Uno, D.
- Yost, D. M., Andersen, T. F., and Skoog, F., free energy of formation of iodine mono-bromide in carbon tetrachloride solution, A., 351.
- and Blair, C., entropies of polyatomic molecules, A., 784.
- and Claussen, W. H., thermochemical constants of the hexafluorides of sulphur, selenium, and tellurium, A., 466.
- and Kaye, A. L., attempt to prepare a chloride or fluoride of xenon, A., 1128.
- and Shull, G. O., density and molecular state of rhenium tetrachloride and rhenium hexachloride in the gaseous state, A., 218.
- and Stone, W. E., complex ions formed by iodine cyanide with cyanide and iodide ions; vapour pressure, free energy, and dissociation of iodine cyanide, A., 675.
- Yothers, W. W. See Miller, R. L.
- Youell, J. E. See Langwell, H.
- Youmans, J. B., Bell, A., Donley, D., and Frank, H., endemic nutritional oedema. I. and II. Clinical findings and dietary studies, A., 181, 303.
- Young, A. C., and Creelman, A. G., spectrum of the corona discharge in air, oxygen, and nitrogen, A., 331.
- Young, A. H. See Fonda, G. R.
- Young, A. W., and Walker, R. H., Winogradsky spontaneous culture test on Iowa soils, B., 726.
- Young, D. J., and Young-Whitwell Gas Process Co., carburetted water-gas, (P.), B., 693.
- Young, D. M. See Allen, C. F. H., Badger, R. M., and Coryell, C. D.
- Young, D. W. See McHargue, J. S.
- Young, E., [filming] oil for gas holders, B., 291.
- Young, E. G., and Dreyer, N. B., excretion of uric acid and urates by the bird, A., 1320.
- Young, F. W., filter, (P.), B., 96. Filter-cake treating devices, (P.), B., 657.
- See also Wright, A.
- Young, G. H., and Rowland, B. N., relation between hydration capacity and pentosan content of soft wood pulps, B., 1002.
- See also Lewis, H. F.
- Young, H. A., and Bray, W. C., rate of fourth-order reaction between bromic and hydrobromic acids; kinetic salt effect, A., 31.
- Young, H. D. See Nelson, O. A.
- Young, J. See Robertson, J. A.
- Young, J. B. See MacIntire, W. H.
- Young, J. C. See Glaze, F. W.
- Young, J. H., and Robertson Co., H. H., anti-stick coating material [for bituminous surfaces], (P.), B., 1019.
- Young, K. W. See Imperial Chem. Industries.
- Young, L. A., and Bradbury, N. E., photoelectric currents in gases between parallel plate electrodes, A., 202.
- See also Uhlenbeck, G. E.
- Young, (Miss) M. W. See Moore, T. S.
- Young, P. See Willard, H. H.
- Young, P. C., and Robinson, R., attempts to prepare derivatives of 1:2-dihydroisoquinoline; new interpretation of J. S. Buck's experiments on the synthesis of so-called 1:2-dihydropapaverine, A., 514.
- Young, R. A. G., manure, (P.), B., 324.
- Young, R. C., reactions of complex chlorides of trivalent and quinquevalent tungsten, A., 134.
- Young, T., and Heddle, R. G., control of the annual nettle, B., 86.
- Young, V. H., Janssen, G., and Ware, J. O., cotton wilt. IV. Effect of fertilisers, B., 201.
- Young-Whitwell Gas Process Co. See Young, D. J.
- Youngburg, G. E., phosphorus metabolism. III. Determination of phosphorus in urine, A., 178.
- Younger, K. R. See Rhodes, F. H.
- Youngken, H. W., commercial psyllium seeds, B., 250.
- Youngstown Sheet & Tube Co. See Leahy, F. E.
- Youtz, M. A., and Lauer, B. E., commercial evaluation of pulp cord-wood, B., 1001.
- and Standard Oil Co., chlorohydrins, (P.), B., 696. Glycols, (P.), B., 696. [Production of glycols by] hydrolysis of olefine oxides, (P.), B., 855.
- See also Lauer, B. E., and Voorhees, V.
- Yuan, H. C., and Adams, R., stereochemistry of diphenyls. XXVI. Effect of substitution on rate of racemisation of optically active diphenyls, A., 63.
- Yudkin, J., hydrogenlyases. II. Factors concerned in production of the enzymes, A., 187.
- Yü, H., *Buddleia* and buddleoflavonoid, A., 877. Chemistry of *Buddleia*. II, A., 877.
- Yuen, K. C. See Small, L. F.
- Yukimori, T. See Ueno, Sei-ichi.
- Yumoto, K., spark ignition of low inflammable gas mixtures. II. Spectrographic examination of the ignition spark, A., 1123.
- Yun, I. S., anaphylaxis and calcium, A., 186.
- Yungblut, G., and Richardson Co., felted sheets containing bitumen, (P.), B., 621.
- Yunker, J. A., and Natural Gas Hydrogen Corp., production of carbon black, (P.), B., 1044. Re-forming of natural gas, (P.), B., 1044.
- Yurchak, I. I., and Sukachev, V. V., influence of the glaze layer and vitrification on dielectric properties of insulators, B., 228.
- Yust, H. R. See Stickney, F. S.
- Yutzy, H. See Koltzoff, I. M.
- Yuuki, H. See Kuramoto, T.
- Yuzuriha, T., iodine metabolism. I, A., 1326.
- Z.
- Zaaroordijk, W., filtering of gases and fogs, (P.), B., 495.
- Zabel, R. M., reflexion of atomic beams from sodium chloride crystals, A., 3.
- Vapour pressure of vacuum cements, A., 587.
- Zabolotski, M., and Barsukov, A., changes in oil-bearing seeds stored under various conditions, B., 155.
- Zabriskie, J. W. See Bramer, H. von.
- Zacharewicz, M. A., nitrogen fertilisers and the culture of vines, B., 563.
- Zacharewicz, W. See Stawinski, K.
- Zacharias, J., temperature dependence of Young's modulus for nickel, A., 893.
- See also Dingwall, A.
- Zachariassen, W. H., atomic arrangement in glass, A., 12. Refractive indices of potassium chlorate crystals, and the structure of the  $\text{ClO}_3$  group, A., 211.
- Structure of groups in crystals, A., 213. Structure of vitreous oxides, A., 1107.
- and Ziegler, G. E., crystal structure of calcium metaborate, A., 13.
- Zacharov, A. See Salkind, J. S.
- Zacharov, N. See Iljin, B. V.
- Zacherl, M. K., determination of urinary indican by means of the Pulfrich photometer, A., 1187.
- Zack, S. I., Laughlin process of sewage treatment, B., 766.
- Zäch, C., determination of formic acid in fruit juices, B., 1081.
- Zänker, K. See Klinger, P.
- Zaev, P. P., influence of shelter belts on fertility of ordinary chernozem, B., 401.
- Zagajewska, M., storage of mixtures of phosphorite meal and superphosphate, B., 623.
- Zagami, V., and Famiani, V., nutritive value of proteins of leguminous seeds, A., 743.
- See also Famiani, V.
- Zagorskikh, A., colour tests for salicylic acid and its derivatives, A., 732.
- Zahn, C. T., electric moments of nitrogen dioxide and nitrogen tetroxide, A., 663.
- Free rotation and electrical moments of diacetyl, acetylacetone, acetic anhydride, and ethyl acetate, A., 888.
- Zahn, O., small crystals, B., 447.
- Zahnd, H., and Clarke, Hans T., labile sulphur in proteins, A., 1179.
- Zahradnick, J., determination of absolute thermal coefficients of expansion of liquids, A., 689, 1026.
- Zaikin, A. A., phenolic derivatives of alizarin-saphirole, B., 697.
- See also Iljinski, M. A.
- Zak, T. J., use of the compensating colorimeter in (nickel) electroplating industry, B., 67.
- Zakariás, J. See Schick, K.
- Zakharenko, A. G., Frish, M. V., and Dumskaja, A. I., plumbite treatment of light straight-run and cracked fractions, B., 212.
- Zakharova, G. V. See Lyutin, L. V.
- Zakomorny, M. See Chrzaszcz, T.
- Zakoshchikov, A. P., Ivanova, V. T., and Kurenova, A., determination of pentosans in vegetable materials by Tollens' method, A., 104.
- Korsheniovski, G. A., and Ruitikov, M. G., microscopic investigation of cotton fibres at various stages of maturity, B., 185.
- Zaleski, J. See Smoleński, K.
- Zalewska, (Mlle.) Z. See Dziewoński, K.
- Zamaron, J., industrial results with Zamaron process of beet-juice purification, B., 38. Action of acids on iron and copper; [corrosion of sugar-factory plant], B., 709.
- Zamotorin, M. See Saldau, P. J.
- Zanaldi, D. See Udaondo, C. B.
- Zanelli, F. See Antoniani, C.
- Zaniboni, R., pure liquid ammonia from ammonia liquor, (P.), B., 306.
- Zanstra, J. E. See Jaeger, F. M.
- Zapadinski, M. B., and Zhogina, V. M., colorimetric determination of vanadium, A., 1264.
- Zapata, C. See Ephraim, F.

- Zapevalov, G. G., and Pogorelov, A. D., elimination of antimony in flame refining of crude copper, B., 391.
- Zaporojanu, T. See Vlădescu, I.
- Zappi, E. V., constitution of the cyanogen halides. IV. Action of silver oxide on cyanogen chloride and iodide, A., 1281.
- and Degiorgi, H., decomposition of phenyl iodide dichloride. VII. and VIII., A., 385, 942.
- and Egea, P., decomposition of phenyl iodide dichloride. VI., A., 267.
- and Williams, A. T., new general reagent for enols; mercurous nitrate. II. Absorption spectra of normal and enolic forms of aldehydes and ketones. III. Influence of pH on stability of solutions of aldehydes, A., 146.
- Zart, A., falling-sphere viscosimeter for opaque liquids, B., 607.
- Hartmann, A., Hoelkeskamp, F., and Amer. Bemberg Corp., artificial cellulose yarns produced by the stretch spinning process, (P.), B., 586. Artificial yarn, particularly artificial silk yarn, (P.), B., 586.
- Zartman, W. See Waldeland, C. R.
- Zarubina, O. See Bruns, B.
- Zashikhin, N. V., depressing action of zinc hyposulphite on Ridder ores, B., 871.
- Zavelski, D. Z., preparation of naphthol AS-BS, B., 421.
- Zavertnik, J., jun., and Barrett Co., impregnating process [for paper, fabric, etc.], (P.), B., 700.
- See also MacCubbin, A. A.
- Zaviska, F. See Trkal, V.
- Zavriev, D. K., investigation of clays by the dissociation method, B., 227.
- Zavyalova, A. P. See Petrunkin, A. M.
- Zawadzki, J., and Bretsznajder, S., reactions between calcium oxide and carbon dioxide and between calcium oxide and sulphur dioxide, A., 474. Heterogeneous reactions of the type  $A_{solid} + B_{gaseous} \rightleftharpoons C_{solid}$ . I. Inconstancy of equilibrium pressure, "apparent equilibria," and their interpretation. II. Kinetics of formation and decomposition of carbonates, A., 911.
- Zawels, E. A., and Reilly, H. W., azotemia and dental affections, A., 1189.
- Zdansky, A. E., modern large-unit cell batteries for production of electrolytic hydrogen, B., 526.
- Ze, N. T., and Chao, C. L., influence of pressure on photographic sensitivity to light of various wave-lengths, A., 236.
- and Piaw, C. S., absorption of light by ozone between  $\lambda$  3050 and 2150 Å., A., 444.
- Zechmeister, L., Cholnoky, L. von, and Vrabély, V., determination of double linkings in the carotene molecule, A., 254.
- Grassmann, W., Tóth, G., and Bender, R., mode of union of the glucosamine residues in chitin, A., 55.
- Mark, H., and Tóth, G., cellotriose and its importance for structure of cellulose, A., 260.
- and Tóth, G., partial fission of animal cellulose, A., 381. Deamination of glucosamine, A., 494.
- See also Grassmann, W.
- Zeehuisen, J. J., physical interpretation of the knock problem, B., 850.
- Zeeman, P., and De Gier, J., experiments on isotopes of the noble gases: and hydrogen by means of J. J. Thomson's mass spectrograph, A., 1099.
- See also Gisolf, J. H.
- Zeh, W. See Dieterle, W.
- Zehender, F. See Karrer, P.
- Zehenter, J. [with Mayr, S.], p-xyleneol-sulphone, A., 819.
- Zehnder, L., investigations of the ultra-violet rays, A., 338.
- Zeidler, G., and Rosen, B., determination of "critical oil absorption" of pigments, B., 198.
- See also Wolf, H.
- Zeiber, E. See Trénel, M.
- Zeile, K., determination of diffusion coefficients of substances of high mol. wt.; diffusion of catalase, A., 425, 747.
- and Piutti, P., constitution of cytochrome. II., A., 959.
- Zeilinger, A., catalase of milk, A., 300. Source of the primary catalase of cow's milk, A., 412.
- Zeise, H., spectral physics and thermodynamics; calculation of free energies, entropies, specific heats, and equilibria from spectroscopic data and validity of the third law, A., 1245.
- Zeiss, C., instruments for rapid examination of transparent microscopic preparations, (P.), B., 4.
- Zeisset, W. See Abderhalden, E.
- Zeitz, A. H., apparatus for clarifying liquids, (P.), B., 816.
- Zelger, G. E., and Du Pont Film Manufg. Corp., plastic cellulose compound, (P.), B., 722.
- Zelikman, I. F., and Lyubitzki, K. K., bone-black regeneration, B., 166.
- and Shnaidman, L. O., direct production of raffinate without recrystallising, B., 761.
- and Sichkarenko, A. I., affination of massecuites with use of vacuum, B., 761.
- Sichkarenko, A. I., and Velichkovski, A. V., refining of sugar directly from beet sugar without recrystallisation, B., 326.
- See also Shnaidman, L. O.
- Zelinski, N. D., and Juriev, J. K., composition of Ural petroleum (Perm), B., 948.
- Kazanski, B. A., and Plate, A. F., 1-methylcyclo-[1:2:2]-heptano and its behaviour during catalytic dehydrogenation and hydrogenation; fission of the cyclopentane ring by catalytic hydrogenation, A., 1150.
- and Levina, R. D., cyclopentadiene and methylcyclopentadiene, A., 495. Products of cracking of oleic acid in presence of aluminium chloride, A., 806.
- and Michlina, S. E., cracking of Emba petroleum, Grosny paraffin, and ceresin, B., 612.
- Michlina, S. E., and Eventova, M. S., new hydrocarbons of the cyclopentane series and their passivity towards catalytic dehydrogenation, A., 1150.
- Packendorff, K., and Leder-Packendorff, L., selective catalytic reduction of ketones, A., 715.
- and Paulov, G. S., kinetics of the irreversible catalysis of cyclohexene and the cyclohexadienes, A., 1150.
- Schuiquin, N. I., and Fatejev, I. M., dicyclic hydrocarbons; cyclohexylidene-cyclohexane and dicyclohexyl, A., 152.
- Zelinski, N. D. See also Packendorff, K., and Ushakov, M. I.
- Zell, F. See Högl, F.
- Zellner, H., aluminium as a cause of cancer, A., 738.
- Zellner, J. See Fränkel, Edmund, and Leukacs, L.
- Zellstofffabrik Waldhof, and Faust, O., cellulose esters or ethers suitable for plastic masses, foils, varnish coatings, etc., (P.), B., 879.
- Zellweger, W., apparatus for removing solid matter from air and gases, (P.), B., 530.
- Zelmanov, I. L. See Gen, M. I.
- Zener, C., theory of interchange of vibrational and translational energy, A., 206.
- Zenner, G. H. See Linde Air Products Co.
- Zenor, H. See Roller, D.
- Zentner, M. See Hermann, S.
- Zepalova-Michailova, L. A. See Kulikov, I. V., and Roshdestvenski, M. S.
- Zeppmeisel, L. See Hesse, E.
- Zerban, F. W., formic acid in sugar products, B., 166.
- and Gamble, C. A., effect of reversion products and amino-compounds on sucrose determinations in cane products, B., 246.
- Zerbe, K., and Eckert, Franz, chemical composition of pitch distillate, B., 210.
- Eckert, Franz, and Jentzsch, H., catalytic influences in spontaneous ignition processes, A., 1253.
- Zerfas, L. G. See Helmer, O. M.
- Zerr, G., behaviour of pigments in cellulose lacquers, B., 114. Staining power of Prussian-blue, B., 157.
- Zerrweek, W. See Brigl, P.
- Zervas, L., and Sessler, P., synthesis of d-glyceroic acid, A., 1143.
- See also Bergmann, M.
- Zerzow, W. G., filter, (P.), B., 897.
- Zetzmann, H. J. See Müller, Gotthard.
- Zeuer, C., dissociation of excited diatomic molecules by external perturbations, A., 761.
- Zeumer, H. See Roth, W. A.
- Zevalina-Blokh, A. See Heublyum, R.
- Zeyen, M. See Dietrich, S.
- Zherdev, N., stability of cracked [oil] distillates, B., 135.
- Zherdeva, L. G., ceresins from Grozni crude oil, B., 50.
- and Berlin, R. I., ceresin and paraffin in Chelekenui ozokerite, B., 213.
- See also Sachanov, A.
- Zhogina, V. M. See Zapadinski, M. B.
- Zhuk, N. B. See Vargin, V. V.
- Zhuravskaja, A., [changes in] amount and properties of fat globules in Siberian cow's milk during lactation period, A., 1186.
- Zhuse, V., and Karchatov, B. V., electrical conductivity of cuprous oxide, A., 1000.
- Ziekelbein, U., urinary excretion of creatine and creatinine on diets with and without meat, A., 856.
- Zickrick, L., properties of copper deoxidised with calcium, B., 193.
- Ziecker, R. See Clauberg, C.
- Ziegler, E. E., properties of pneumocholin, a biochemical antigen, A., 1084.
- Ziegler, F. K., and Ohio Steel Foundry Co., gas retort, (P.), B., 213.
- Ziegler, G. E. See Zachariasen, W. H.
- Ziegler, K., chemistry of radicals with trivalent carbon, A., 1138. Production of substitution products of acid nitriles [alkylation, etc., of acetonitrile and derivatives], (P.), B., 822.

- Ziegler, K., unsaturated substituted tertiary acetamides having a strong hypnotic action, (P.), B., 892.
- Eberle, H., and Ohlinger, H., poly-membered ring systems. I. Synthesis of polymethylene ketones with more than six-membered rings, A., 951.
- and Ewald, L., tervalent carbon. XIII. Chain reactions during the autoxidation of radicals, A., 943.
- Ewald, L., and Sieb, A., tervalent carbon. XIV. Rates of autoxidation and decomposition of dissociable ethanes, A., 943.
- and Lüttringhaus, H., tervalent carbon. XV. New tautomerism of dichromenylenes, A., 943.
- Orth, P., and Weber, K., tervalent carbon. XII. Rate of dissociation and energy of activation of hexaphenyl-ethane, A., 943.
- Ziegler, M. See Engel, Rudolf, and Stiasny, E.
- Ziegler, N. A., reduction of oxides in the graphite vacuum-fusion method of analysis [of steel] for oxygen, B., 630.
- Ziegler, W. See Jung, G.
- Ziel, A. vander. See Coster, D.
- Zielstorff, W., and Nehring, K., action of various phosphates on moor soils, B., 803.
- See also Nehring, K.
- Ziemecki, S. See Wolfke, M.
- Ziese, W. See Klein, Gustav.
- Zifferer, L. R. See Columbia Malleable Castings Corp.
- Ziip, C. van, micro-optical properties of cocaine hydrochloride and novocaine, A., 840.
- Zika, J. See Frejka, J.
- Zilberg, I. G. See Kirkhgof, G.
- Zilberman, D. See Gurevitch, N.
- Zilberman, G., Bolotin, A., and Jakubovitch, S., utilisation of petroleum oil refining by-products in the lacquer pigment industry, B., 1042.
- Jakubovitch, S., Bolotin, A., and Micheeva, M. I., artificial drying oils, and part played in them of cracking by-products, B., 754.
- Jakubovitch, S., Romanova, P., and Roshdestvenski, S., influence of film-forming components of cellulose nitrate lacquers on properties of the films, B., 719.
- Zillgen, M. See Diepschlag, E.
- Zilva, S. S., antiscorbutic activity of the cortex of suprarenal gland of the ox, A., 325. Indophenol-reducing capacity of lemon juice and its fractions in relation to vitamin-C activity, A., 433.
- See also Crane, M. B., Gough, J., Hirst, E. L., and Wallace, T.
- Zimmer, Franz, photo-excitation of Balmer series of hydrogen canal rays in relation to conditions of the discharge, A., 991.
- Zimmer, Fritz, varnish manufacture, B., 77.
- Zimmer, R. See Gante, T.
- Zimmerley, H. H., and Brown, B. E., fertiliser ratios of ammonia, phosphoric acid, and potash for potatoes, B., 36.
- Zimmerli, W. F., Havenhill, R. S., and Goodrich Co., B. F., adhesive composition, (P.), B., 880.
- See also Gilbert, H. N.
- Zimmerman, E. W., coloured waterproof drawing inks, B., 977.
- Zimmerman, J. G., and Burgess Battery Co., coating composition for dry cells, (P.), B., 926. Dry cell, (P.), B., 926.
- Zimmerman, L. C. See Western Electric Co.
- Zimmerman, L. I., time lag in formation of the latent image, A., 132, 1255.
- Zimmerman, I. M. See Lieberman, A. L.
- Zimmerman, P. W., Crocker, W., and Hitchcock, A. E., effect of carbon monoxide on plants, B., 726.
- Crocker, W., and Hitchcock, A. E., initiation and stimulation of roots from exposure of plants to carbon monoxide, A., 437.
- and Hitchcock, A. E., initiation and stimulation of adventitious roots caused by unsaturated hydrocarbon gases, B., 1027.
- Zimmerman, S. S. See Mashkillison, B.
- Zimmermann, A. See Ruggli, P.
- Zimmermann, C. See Schmidt, Jonas.
- Zimmermann, J., a triterpenediol mono-stearate from coca fruit (*Erythroxylon novogranatense*), A., 162. Oil from seeds of *Ganua (Bassia) Molleyana (Sapotaceae)*, B., 1017.
- Zimmermann, L. See Halla, F.
- Zimmermann, P., and Brassert & Co., H. A., blast furnace, (P.), B., 631.
- Blast-furnace bell construction, (P.), B., 631.
- Zimmermann, Walther, and Canzanelli, A., protein problem: methylation of arginine, A., 1148.
- Zimmermann, Wilhelm. See Frankenburg, W.
- Zimmermann, W. J., and Mead Paperboard Corp., paper, (P.), B., 621.
- Zink, J., solubility of lead in water, B., 286.
- Zinke, A. See Pongratz, A.
- Zinkov, Z. E., oxidation of toluene to benzaldehyde and benzoic acid, A., 274. Application of Nernst's approximate formula to cases of complex heterogeneous equilibrium in organic chemistry, A., 905.
- Zinner, D., and Newport Chem. Corp., azo-dyes [for wool], (P.), B., 222.
- See also Du Pont de Nemours & Co., E. I.
- Zinser, P. R., and Woodall Industries, Inc., electroplating of non-conductive materials, (P.), B., 512.
- Zinserling, K., and Schubnikov, A., plasticity of quartz, A., 893.
- Zintl, E., and Brauer, G., metals and alloys. X. Valency electron rule and atomic radii of base metals in alloys, A., 562.
- and Harder, A., sodium nitrosyl, A., 578.
- and Husemann, E., metals and alloys. XII. Nature and structure of lattices of binary magnesium compounds, A., 558.
- and Kaiser, H., metals and alloys. VI. Formation of negative ions by elements, A., 472.
- and Neumayr, S., metals and alloys. VII. Crystal structure of indium. VIII. Crystal structure of  $\beta$ -lanthanum. IX. Alloy phases of the type  $\text{NaPb}_3$ . XI. Lattice structure of  $\text{NaIn}$  and deformation of atoms in alloys, A., 341, 562.
- Zinzadze, C., artificial nutrition of cultivated plants. I. Nutrient media of stable pH, A., 437; B., 839.
- Zipf, K., and Bartscher, E., inactivation of biogenic amines etc. by formaldehyde, A., 1077.
- Zipf, K., and Bräkling, J., pharmacology of substances from yeast, A., 1077.
- and Dringenberg, H., action of liver extracts on carbohydrate metabolism, A., 754.
- and Hülsmeier, P., histamine-like and "delayed" toxic substances in blood, A., 1316.
- Ziptel, M. See Wagner, Hans.
- Zipperer, L., and Müller, Georg, determination and calculation of viscosity of gas mixtures, B., 128.
- Zipprich, B., proportional amplifier for indicating single corpuscular particles, A., 1265.
- Zirkle, C., cytological fixation with the lower fatty acids, their compounds and derivatives, A., 736.
- Zirkler, J., association of strong electrolytes, A., 123. Diffusion in liquids, A., 353. Nernst's theory of association of strong electrolytes, A., 464. Haber's glass cell, A., 572.
- Zirlin, D. L. See Volkovitsch, S. I.
- Zirm, K. L. See Reuter, F., and Willstaedt, H.
- Zisch, W., and Roessler & Hasslacher Chem. Co., preparations which give off oxygen, (P.), B., 828.
- Ziskind, E., hyperinsulinism, A., 971.
- Zisman, G. S. See Pshenichni, A. M.
- Zisman, W. A., Young's modulus and Poisson's ratio with reference to geophysical applications, A., 1028. Comparison of the statically and seismologically determined elastic constants of rocks, A., 1029. Compressibility and anisotropy of rocks at and near the earth's surface, A., 1029.
- Zitek, A. See Kluge, H.
- Zitler, G. I. See Viktorov, P. P.
- Zivadinović, R. See Pushin, N. A.
- Zivy, A., [resinous] moulded materials [for electrical insulation], (P.), B., 31.
- Zlotowski, I. See Swientoslawski, W.
- Zmacyński, A., ebulliometric and tonometric researches on chemically pure liquids. I., A., 560.
- See also Swientoslawski, W.
- Znamenskaja, L. A. See Gortikov, V. M.
- Znamenskaja, M. See Kiesel, A.
- Zobell, C. E., factors influencing reduction of nitrates and nitrites by bacteria in semi-solid media, A., 190. Photochemical nitrification in sea-water, A., 236.
- and Meyer, K. F., metabolism of the *Brucella* group. VIII. Nutrient requirements in synthetic media. IX. Physico-chemical requirements in synthetic media, A., 866.
- and Zobell, M. H., metabolism in the *Brucella* group. III. Viability in aqueous solutions, A., 190.
- See also Meyer, K. F.
- Zobell, M. H. See Zobell, C. E.
- Zocher, H. [with Eisenschimmel, W.], effect of a magnetic field on the nematode state, A., 1108.
- and Jacobowitz, M., intermediate states of aggregation, A., 766.
- See also Heller, W.
- Zodrow, A. See Wartenberg, H. von.
- Zoellner, E. A. See Gilman, H.
- Zolcinski, J., deluvial processes in soils, A., 253, 589.
- and Mnsierowicz, A., nitrogen losses in decomposition and humification of red clover, B., 84.

- Zolina, V. See Fréedericksz, V.
- Zollinger, R., theory of rotary [Portland cement] kiln, B., 466. Thermochemistry of cement burning, B., 466.
- Zolotarev. See under Solotarev.
- Zondek, B., biology and chemistry of sex hormones, A., 322. Conversion of urinary folliculin into an ether-extractable form, A., 430. Prolan in the pituitary. I. Prolan in the pituitary lobes and pars tuberalis in man and the ox. II. Production of prolان in basophilic cells, A., 1086. Female sexual hormone, (P.), B., 44.
- and Krohn, H., hormone of the pituitary pars intermedia. II. Intermedin in the organism. III., A., 98, 319.
- Scheibler, H., and Krabbe, W., purification of the gonadotropic hormone (prolan), A., 430.
- See also Euler, H. von, and Zondek, H.
- Zondek, H., and Bier, A., bromine in blood in psychoses, A., 739.
- Zondek, B., and Hartoch, W., prolان and tumour growth; inhibiting effect of prolان on implanted carcinoma in the white mouse, A., 539.
- Zondek, S. G., and Bandmann, M., heavy metals in the cell; copper and vitamin-B; copper and iron in tumours, A., 738.
- Zorin, I. I. See Spitzin, N. I.
- Zotos, G., refining of oils, etc., by steam treatment, (P.), B., 294. Distillation retort, (P.), B., 950.
- Zotos, G. A., new method of melting glass and silicates, B., 105.
- Zotov, P. See Robinov, M.
- Zottoli, A. M., building material, (P.), B., 966.
- Zouckermann, R., high-frequency discharge in argon in presence of mercury, A., 656.
- Zoul, C. V., obtaining oil and other products from olives, (P.), B., 638.
- and Coen Companies, Inc., treatment of clay, (P.), B., 735.
- Zschacke, F. H., apparatus glass. I. and II., A., 926.
- [with Lindblad, E.], behaviour of heavy-metal compounds in melting of glass batches under strongly reducing conditions. I. Activity of reducing agent, B., 704.
- Zschacke, F. H., Höfler, W., and Rianza, A., effect of barium oxide on properties of technical glasses, B., 507.
- See also Eckert, Fritz.
- Zschimmer, E. See Schwarz, M.
- Zschimmer, F. See Schwarz, M.
- Zschimmer & Schwarz Chemische Fabrik Dörlau. See under Schwarz, M.
- Zubarev, S. N., flotation of Kounrad oxidised copper ore, B., 308.
- Zuber, R., diffusion in liquids. II. Micro-diffusion apparatus for colourless liquids. III. Diffusion measurements on electrically neutral liquid mixtures and solutions, A., 17.
- and Sitte, K., diffusion in liquids. IV. Diffusion measurements on electrolytic solutions, A., 17.
- Zuber, S., geochemistry of oil formation, A., 46.
- Zubrys, A. See Karrer, P.
- Zucker, M. See Moore, C. G., and Mutersbaugh, G. H.
- Zucker, T. F., Newburger, P. G., and Berg, B. N., chemical differentiation of nervous and hormonal pancreatic secretion, A., 412.
- Zuckermandl, F., and Messiner-Klebermass, L., action of co-enzyme. II. Conversion of acetaldehyde by yeast, A., 188. Role of iron in alcoholic fermentation, A., 751.
- Zuckerman, E. C., and Dow Chem. Co., preservative [stabilisation of tetrachloroethylene], (P.), B., 216. Preventing decomposition of halogenated hydrocarbons, (P.), B., 216.
- Zünkel, R. See Hansen, C. J.
- Zündel, A. See Trautz, M.
- Zuikov, V. K. See Chernozhukov, N. I.
- Zumbro, F. R., and Frick Co., scrubbing and absorbing apparatus [for gases], (P.), B., 371.
- Zummo, D. C., effect of glucosamine on metabolism in the pigeon, A., 419.
- Zumstein, O. See Abderhalden, E., and Lehmstedt, K.
- Zunker, P. See Bauer, O.
- Zunz, E., effect of insulin on reduced glutathione of the blood, A., 321. Influence of thyroxine, thyroglobulin, and paroidin on the reduced glutathione content of blood, A., 1087.
- Zunz, E., influence of insulin on reduced glutathione of blood, A., 1209. Fibrinogen content of fish plasma, A., 1317. Coagulation of fish blood, A., 1317.
- and La Barre, J., effect of thyroxine on blood-sugar, A., 193. Effect of thyroglobulin on secretion of insulin and adrenaline, A., 538.
- Zuravlev, S. See Kubelka, V.
- Zureher, P., and Continental Oil Co., refining of hydrocarbons, (P.), B., 695. Activated carbon, (P.), B., 739. Revivification of carbons, (P.), B., 902. [Hydrocarbon] cracking process, (P.), B., 902.
- See also Miller, W.
- Zurukzoglu, S. See Gordonoff, T.
- Zvjaginstsev, O. E., forms under which platinum and allied metals occur in nature, A., 1137.
- Zvyagin, A. A. See Selivanov, B. P.
- Zwagermann, G., specific influence of sugar-beet leaves and tops on the quality of milk, A., 626.
- Zwarenstein, H. See Schrire, I., and Shapiro, B. G.
- Zwerina, J. See Lang, R.
- Zwetkova, N. See Malkov, A.
- Zwicky, F., co-operative phenomena, A., 340. Superconductivity, A., 1236.
- Zwieg, W., and Eck, F., use of NCT, steel tubes for elementary analysis of solid and liquid fuels by Liebig's method, B., 5.
- and Kossendey, F., distribution of sulphur in [gas] purification, B., 947.
- Zwierzchowski, R. See Ludwiczakówna, R.
- Zwikker, J. J. L., complex compounds derived from diethylbarbituric acid, A., 75. Detection of saccharin and composition of complexes with copper and pyridine, A., 732.
- Zwilmeyer, F., and Nat. Aniline & Chem. Co., trisazo-dye, (P.), B., 1001.
- Zworykin, V. K. See Marconi's Wireless Telegraph Co.
- Zychlinski, B. von. See Fischer, Hans.
- Zyganova, P. V. See Smorodincev, I. A.
- Zyp, C. van, microchemical reaction for cholesterol, A., 964.